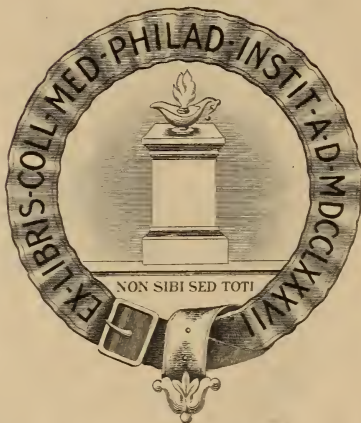


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O. C. WELBOURN, A.M., M.D.

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No. 1

:: Original Contributions ::

SANGUINARIA

J. A. Munk, M.D., Los Angeles, Cal.

(Read before the Los Angeles Eclectic Medical Society)

Sanguinaria is an old-time but neglected remedy, which neglect was doubtless due to its unpleasant taste.

The plant itself is a curiosity and is not often seen. Its native habitat is some wild, cool, shady nook, where it flourishes in rich, black, sandy soil, and is not often discovered or disturbed. It is a low-growing plant, consisting of several large, round, radical leaves and a flower stalk. The root is blood-red and the flower snow-white; and its blossom is as dainty and delicate as an orchid. It is one of the early spring wild flowers in the East and is sometimes seen even before all of the snow is off the ground.

The ordinary tincture of the pharmacy has a bright red color and an acrid taste. The powdered root, applied locally, is an irritant and an important ingredient of Beach's Irritating Plaster and of Lloyd's Libradal. Taken internally in large doses, it is an emetic, and in moderate doses is an expectorant, chologogue and stimulant to the capillary circulation. It is especially useful in colds, coughs and pulmonary congestion.

The Specific Medicine Sanguinaria is a perfectly reliable preparation, but, like products of the drug, is somewhat harsh in its action and does not mix clear with water. Professors John King and John M. Scudder, in their day, when Specific Medicines were first introduced, claimed that these remedies were the most perfect medicines ever made. In recent years these preparations have been greatly improved, and if the early leaders of Eclectic medicine could see these agents as they are presented now in the form of Colloidal Specific Medicines, their eyes would open wide in wonder and amazement at their

superior beauty and excellence, produced by the genius and magic touch of Professor John Uri Lloyd.

The medicinal qualities of a drug depend either on an alkaloidal or colloidal substance found in the structure of every plant. The finished alkaloids are all well known and usually appear in the form of a white crystalline powder, such as morphine, quinine, strychnine, etc. The colloids are of an amorphous, non-crystallizable nature, and until recently have been elusive and difficult to obtain in their separate forms. Both substances are mixed in the plant with inert or harsh acting constituents, such as vegetable chlorophyll, grease and resin, all of which are dissolved and extracted en masse with alcohol by maceration and percolation. A tincture or fluid extract thus prepared, because of its objectionable ingredients, makes an unpleasant and undesirable medicine, and has to undergo a refining process to make it palatable.

The process of separating an alkaloid from its foreign matter by chemical action is now well understood, but the character and function of the colloids were a mystery until Professor Lloyd wrested nature's secret. To successfully separate the colloidal substance of a medicine from its undesirable companions and not destroy its medicinal value, delicate fragrance and distinctive flavor, is a difficult and delicate operation, but it has been accomplished.

Forty years ago Professor Lloyd got the idea of the importance and mystery of the colloids, and during all these years has been delving in the new field of colloids while other chemists slept. Little by little, he unraveled the secret, until in the end he achieved complete success and the value of his patient and persistent toil is seen in the line of elegant Colloidal Specific Medicines that he has evolved. His discoveries in chemistry have revolutionized pharmacy in some respects, and immeasurably benefited medicine.

One of the finest of these preparations is Sanguinaria, a remedy the physician will have use for frequently, as colds are common and in these cases it is especially useful. In diseases of the respiratory tract, it is the remedy par excellence. In a case of pharyngitis, laryngitis or bronchitis, where there is local irritation and secretion of tenacious mucus, accompanied by a hacking cough, this remedy will afford immediate relief. It promptly relieves the irritation and the cough disappears. Ten drops of the medicine in a half glass of water and given in teaspoonful doses, frequently repeated, will do the trick.

The mixture is perfectly clear, of a bright amber color, and with its characteristic taste and flavor unimpaired; and is not at all bad to take. The improvement of these new remedies over the old borders on the miraculous.

FLOATING KIDNEY

O. C. Welbourn, M.D., Los Angeles

(Read before the Southern California Eclectic Medical Ass'n)

"The subject of floating kidney seems to be the fad just now, and after reading some of the articles written one might be excused for supposing that the writer believed that all of the ills to which man—or rather woman—is heir may be ascribed to this cause. But, inasmuch as floating kidney as a surgical entity is of comparatively recent discovery, and as a great many women had fair health previous to that time, we may safely conclude that the long list of other and divers diseases has not been summarily abolished. As a matter of fact, the physician who expects to cure a woman who is chronically ill may just as well get down and dig, first as last. It is not enough to discover a lacerated cervix and to say, "Have this repaired and you will be well again," for what woman who has borne children has not a lacerated cervix? Nor is it satisfactory to nicely repair an hemorrhoidal rectum and then have the patient complain that there has been little if any improvement in her general condition. What the patient is entitled to receive is a thorough and complete examination. Don't forget that a woman's clothes are primarily devised to hide her defects. Make her show her skin in important regions. Take up each vital organ separately and determine exactly its physiological action and pathological condition at that particular time. Such an examination will frequently reveal a disease in an important organ for which there has been no symptom expression. Having made a discovery, do not rest from your labors but press steadily on until you have examined the patient carefully from head to toe. For as a rule a patient, chronically ill, is suffering from many diseases, not one. Then, with the history of the case and the physical facts at hand, it is possible to reach a correct conclusion and to intelligently set about rectifying whatever wrongs may be present.

In routine examination of women it will be found that at least 10 per cent have a floating kidney. In some cases there have been symptoms which led the examiner to suspect such a condition, but in other cases, none at all. When present they will be found to include that long list of neurasthenic symptoms, commonly called nervous reflexes, and usually ascribed to pelvic disorders; together with wandering, uncertain pains in the lumbar region of the kidney affected. But these symptoms might mean an uncomplicated nephritis as well as some other difficulties not at all connected with the

kidney. A careful physical examination will decide the matter, and this may be done in a number of ways. Perhaps the most satisfactory is to stand on the right side of the patient, who has been placed in a recumbent position. Palpate the entire abdomen with the palmar surface of the fingers, giving particular heed to the intestinal contents and the condition of the appendix, gall bladder and pylorus. If there is an irregular doughy fullness in the region of the ascending colon, with or without tenderness, think of a fecal accumulation. If there is a firmer and more definite mass, which readily slides about, and the manipulation of which remarkably affects the sympathetic nervous system, think of a prolapsed kidney, remembering all the time that it is possible to have both conditions in the same patient at the same time. Ordinarily, however, when the patient is lying upon her back, a floating kidney will have returned to the normal position and it will be necessary to coax it forth again. This may be done by having her assume an erect position and take a deep inspiration. At this moment the examiner grasps the lumbar region between the thumb and fingers and just below the last rib—this must be done carefully, for if a spasm of the abdominal muscles is provoked nothing can be learned—and the kidney will be felt. If no more than the lower third of the kidney is palpated, it is in a normal position. If the entire kidney is palpated it is said to be movable. If there is an appreciable space above the kidney it is said to be floating. In extreme cases it may be found in the pelvis. In some cases a more satisfactory examination can be made by having the patient turn upon the opposite side while in a recumbent position, and then proceed as above detailed. The right kidney is the one usually displaced, and in its descent it lifts the peritoneum from the lumbar muscles and thereby loosens the ascending colon from its proper attachment, which causes loss of peristalsis and fecal impaction. This may produce a local chronic colitis, and this in turn a recurrent appendicitis. When so far advanced a differential diagnosis is sometimes difficult, and it may be necessary to give the patient a saline cathartic and finish the examination the next day.

However, having found a floating kidney, what course is best to pursue? Like the treatment of most other diseases, there is no hard and fast rule. While human bodies are similar, yet no two are alike—in fact, the more we study them the more we realize the great differences in those which appear on a casual observation to be exact duplicates. If the physician has examined the entire patient as above recom-

mended, he will find many things to consider besides the floating kidney. All of the conditions must be carefully weighed, bearing constantly in mind that the human body is a minutely complicated machine which will run properly only when each separate part is in good working order. Some floating kidneys are congenital and do not require any treatment at all. Others are cured by one of the many forms of kidney fixation. While a few have been so long neglected that the kidney is almost, if not quite, destroyed and a total extirpation is required. It therefore follows that to indicate the best treatment requires a great deal of hard study and some experience. However, we all know that kidney diseases as a class recover very slowly, and the patient must be warned that the convalescence will be protracted."

* * * * *

All of the above is a verbatim copy of a paper which I read to this Association twelve years ago. In the meantime I have had considerable additional experience in this line of work, and I have reviewed the statements made therein with a great deal of personal interest, and it may interest you to know that my subsequent data confirm all of the opinions expressed at that time. However, if I were writing upon the subject at this time, I should emphasize the point that floating kidney is a surgical difficulty and that it is certainly curable. I believe the reported failures have arisen as a result of faulty technic, or from allowing the patient to assume the erect position too soon after the operation.

ACUTE AND CHRONIC ERYSIPELAS

M. S. Aisbitt, M.D., Los Angeles

Erysipelas is characterized by an inflammation of the skin. The blood is first the seat of the disease, and after causing more or less constitutional disturbance, it subsequently manifests itself on the face, head, ears and extremities.

Symptoms: It frequently exhibits itself at the end of fevers of long continuance. The attack is generally preceded by chills alternating with flushes of heat, oppression at the precordia, difficulty of breathing, cough, expectoration, and a sense of weight in the head. These symptoms may exist for a day or two before inflammation appears on the skin. When erysipelas attacks the face it comes on with chilliness, succeeded by heat, restlessness, thirst, and other febrile symptoms, with drowsiness or tendency to coma or delirium. The pulse is very frequent and full. At the end of two or three days a

fiery redness appears on some part of the face, and this extends to the scalp and gradually down the neck, leaving a tumefaction in every part the redness has occupied. The whole face at length becomes turgid. When the redness and swelling have continued for some time, blisters of different sizes, containing a thin, colorless, acrid liquor arise on different parts of the face. The disease is easily recognized after being seen once. It has a peculiar red with a pinky hue.

Pathology: There are many different opinions as to the cause of the disease, but it is of less importance to the Eclectic physician, for he doesn't treat the disease by name but by the conditions as he finds them.

Treatment: In treating the disease we must keep in view the quick pulse and the high temperature, and the general disturbance of the constitution. For the reduction of pulse I would advise the following prescription, which will reduce the temperature as well:

R/

Fl. Ext. Aconite	
Fl. Ext. Veratrum Vir.	aa. gtt. X
Fl. Ext. Gelsemium	gtt. XX
Fl. Ext. Dioscorea	dr. I
Aqua ad. q.s.	oz. IV

Sig.: Give one teaspoonful every hour until it makes an impression on the pulse and brings it down to normal.

To reduce the inflammation of the skin, when the skin is not broken, I use the following:

R/

Fl. Ext. Aconite	3%
Acid Carbolic	5%

Saturate cloths with this lotion, changing frequently. If blisters have taken place, take equal parts of Tincture Chloride of Iron and water, and apply with a camel's-hair brush to the blister after opening and evacuating the serum. The chronic stage will require a modification in the treatment. You will generally find this disease of long standing and is the result of the acute stage not being properly treated. It usually takes the form of ulceration of the lower limbs. You find the ulcers very deep, even to the bone. After cleansing the ulcers with warm water, apply hydrogen peroxide, then trim the edges and apply 50 per cent solution of Tincture of Chloride of Iron, night and morning. Increase the strength of the iron until it is being used full strength. Each time apply the chloride of iron without removing any that remains from the previous

application, until a crust is formed over the sore. Part of the iron will be absorbed, which will improve the constitution of the patient, and when the sores are healed the crust will come away easily. Internally, give calcium sulphide. This is my method of treating this disease, and it has never failed me.

A CASE OF EMPYEMA FOLLOWING THE INFLUENZA

O. C. Welbourn, A.M., M.D., Los Angeles, Calif.

In common with the rest of the world Southern California had its "siege of the flu." To be sure it was somewhat modified by the climatic conditions, but it was quite severe enough to fully satisfy those who had it. Many of the cases were complicated with pneumonia and in these the mortality was high. Sometimes there was a sufficient involvement of the pleura to cause an effusion into the pleural cavity, and this accumulation of serum had a strong tendency to become pus. A patient having eventually arrived at this stage it might rightly be said that his condition was critical. The following case was of interest to me because the quantity of pus found was the largest in my experience.

Pete S., age 16, normal weight 180 pounds. Father is a Basque and mother a Piute. History given by attending physician who had seen him only the day before as influenza, double pneumonia and right empyema developing in the order named and covering a total of about three weeks. Present condition moribund. Temperature 103, respiration 46, pulse 140, irregular and weak. Entire right side of chest bulging and dull on percussion. Lower margin of the liver found on the pelvic brim. Apex heart beat displaced two and one-half inches to the left. Without delay and under light ether narcosis the usual rib resection operation was performed and the pleura punctured. At the end of an hour one gallon of creamy pus had been evacuated. How much remained is unknown, as it seemed wise to interrupt the evacuation until the displaced organs should have time to recuperate. The patient had a storm convalescence but eventually fully recovered.

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O. C. WELBOURN, A.M., M.D.
Editor

D. MACLEAN, M.D.
Associate Editor

P. M. WELBOURN, A.B., M.D.
Assistant Editor

SPECIAL CONTRIBUTORS:

JOHN URI LLOYD, Phr. M., Cincinnati, Ohio.

J. W. FYFE, M. D., Saugatuck, Conn.

WM. P. BEST, M. D., Indianapolis, Ind.

FINLEY ELLINGWOOD, M. D., Chicago, Ill.

HARVEY W. FELTER, M. D., Cincinnati, Ohio.

J. B. MITCHELL, M. D., San Francisco.

A. F. STEPHENS, M. D., St. Louis, Mo.

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THE RIGHT TO STRIKE

During the last decade strikes have occurred with increasing frequency, indicating a growing discontent with the existing status of economic affairs. The public has endured the inconvenience caused thereby, apparently believing that "things would come out all right in the end." One of the results of this indulgence upon the part of the public has been to encourage the belief upon the part of both contestants that the wishes of the public need be given but scant consideration. There has appeared in the public press such statements as: "The right to strike is absolute," and "The Constitution guarantees the right to strike," etc., etc.

To the writer it seems clear that a little straight thinking will show the fallacy of such contentions. Inasmuch as we live in a country with a civilization which has been minutely organized, it is necessary that each individual perform the function for which he is fitted. For this service, whatever it may be, a compensation is awarded of such character and amount as the majority deem to be just and right. Because of constantly changing conditions such compensations must also change, and any man or group of men rightly may protest and

argue for a readjustment at any time. He even may quit work if he so pleases, provided that in so doing he does not impair the rights of others. Because of the complicated character of our civilization every man's rights are limited and modified by the rights of every other man; and in deciding upon what is right and just in any given premises the interests of all must be considered. As a useful citizen, each man fulfills a necessary function to the end that the "wheels may go around." No man or group of men has a right to quit work when by so doing he stops the machinery. The object of most strikes is to do exactly this very thing, and is therefore wrong. The fact that it has been and is now being done does not prove it to be right; it only proves that the public has been indulgent. If a class of workers have a right to strike, why do not the doctors try it? Is it possible that this class is without a grievance? With the cost of living doubled, why not strike for an increase in pay? All in favor say "Aye!" The "Noes" have it! The idea is repugnant; positively, it is not being done in good society this year—probably it never will be done. The laborer is worthy of his hire and the public may permit him to strike, but he has no inherent right to do so.

THE SUPPLY OF PRACTICAL NURSES

What's the matter with the trained nurse? A wave of harsh and resentful criticism of the professional nurse seems to be sweeping over the country. In spite of a recognition of her splendid achievement in remaking hospital nursing and of setting up high standards for private nursing; in spite of her magnificent and sacrificial service in the great war, she is not now viewed by large numbers of physicians and laymen as a ministering angel of mercy or as an unmixed blessing. And when rebuked for these harsh expressions of disapproval, her unfeeling critics forcefully reply: "She is getting just what she deserves." What does it mean?

Is it because through high standards of admission to her schools, and long years of training before she is graduated, she has chosen to make herself one of a small body of the elect—a superior being? Is it because with the high cost of living and the scarcity of these chosen few, she has, labor-union-like, demanded higher pay, which only the well-to-do can give? Is it because in the home she is autocratic and unwilling to serve except in accordance with rules that she herself lays down, often demanding that service be rendered her and causing discord in the household management at a time of crisis? Is it because in many hospitals she has gradually acquired more

influence and power until, through her officials, she speaks with authority even to the management, and dictatorially demands that before the interests of the medical staff are considered—sometimes even before the interests of the patients—there must be considered those of the nurses? Perhaps there is a little truth in each one of these reasons. Perhaps in this resentful criticism, narrow as it may be, the nurses are reaping what they have sown.

The war and the epidemic of influenza, with the consequent scarcity of nurses, have acutely drawn attention to the trained nurse and to the fact that she does not supply the suitable agent for ministering to the large body of the ill. The very poor may get free nursing in the hospitals, or, if lucky, at their homes through charity; the rich can and will pay whatever may be demanded; but the large mass of people of moderate means, too self-respecting to accept charity, not able to pay the high price of the expert nurse, must be deprived of her services, or secure them at what to these people is often a ruinous sacrifice. More than this: a nurse of the highly trained type is not necessary or even desirable in the vast majority of cases of illness.

What are the requirements of a capable, skilled nurse, a physician's assistant? First, a right personality; without this she is hopeless. Then, intelligence, by which we mean a readiness of comprehension and understanding. Further, she should be of fair education, able to make herself understood, to write, to read, to reason. Lastly, she should have had training of sufficient length, probably one year, in a good hospital. This training should teach her the proper bed care of the ill, the preparation of food, the management of the patient—not his illness—and the methods of administering drugs and other remedial agents. She should learn enough of anatomy so that she will not, with her hypodermic syringe, enter the brachial artery; she should know enough of symptomatology to sense the possible significance of blood in the stool or of abdominal pain in typhoid; she should know enough pathology so that she will not willfully violate the physician's orders against massaging a thrombosed femoral vein; she should have enough theoretical and practical training in bacteriology so that aseptic methods are to her, through her grasp of the reasons underlying them, methods to be scrupulously followed.

It goes without saying that other things—personality, native intelligence, etc.—being equal, the college or high school graduate will grasp these facts more readily and will to this extent, be the more competent nurse. But such superknowl-

edge is not necessary. For 90 per cent of cases of illness, a skilled nurse with the characteristics just enumerated and with one year's training, will answer fully as well, and will fit into the average household better. She will be a true physician's assistant and will be a household helper not too proud to assist in the kitchen or even to help care for the baby. If this is true, why should not this capable woman of ordinary but sufficient ability and training be allowed to practice her profession licensed by the state and earning an honorable livelihood?

There is a place for the highly trained nurse, the registered nurse of today. From their ranks will come the superintendents of the training schools of various grades, the head nurses in our hospitals, the nurses in our operating rooms, nurses for cases of special severity or complication, and the teachers of nurses. Let the training schools preserve their high ideals, though there may be question as to the necessity or wisdom of requiring even a high school degree for admission or a three years' course of training except in special cases or for post-graduate work. For her own good let the nurse be a little less autocratic, a little less dictatorial, a little more human. *Non ministrari sed ministrare* is as good a motto for a training school as for a woman's college. The trained nurse from having been a luxury has become a public necessity, like the telephone and railroad. Should not methods less like those of selfish private ownership give way to those wherein service to the sick public is the paramount aim?

—Jrl. A. M. A.

TRAINING OF HOME NURSES

"Annual Medicine" believes that during the recent epidemic of influenza, as also at the present time, when a recrudescence of the epidemic is being experienced, the urgent need of women who are capable of caring for patients is greater than it was ever experienced within our memory. It is all but impossible to obtain nurses from training schools or from registry offices, while only here and there a "practical" nurse is at leisure, only to be snatched up promptly by some physician or patient who has been watching for such an opportunity.

It cannot be said that the dearth of nurses is attributable entirely to their activities in great numbers in military and naval hospitals as well as abroad; even though, undoubtedly, this circumstance adds to it. For some years the demand for the assistance of these devoted women has far exceeded the supply.

There is another point, however: The services of a trained

nurse entail upon the householder a serious drain upon his resources, which already are barely sufficient, in the majority of cases, to cover the additional financial strain necessitated by illness in the family, by physicians' fees and druggists' expenses. There exists, particularly among people of the middle class, a great need of so-called practical nurses who are capable of following the physician's directions, of making the patients entrusted to their care comfortable, of watching symptoms, and so forth, and who, at the same time, are not above aiding a little in the household affairs; in fact, who may be able and willing to take vicariously the housewife's place if she is ill, or to assist her if another member of the family is incapacitated.

In a great many instances illness is not of such a nature as to require nursing that calls for highly specialized training or knowledge. Any woman with a sufficient endowment of common sense can readily acquire the necessary information and experience in the space of a few months. This, of course, does not mean that the trained nurse is superfluous. On the contrary, her specialized abilities are in demand sufficiently often to make it desirable that far more young women enter the profession. But, at the same time, under less complicated conditions, and when the family exchequer is limited, practical nurses will do very well and often assist the physician satisfactorily and successfully.

With his characteristic energy and habit of going directly to the bottom of things, the Chicago Commissioner of Health, Doctor Robertson, has suggested that women who have a knack for taking care of the sick, but who for some reason or other cannot take a regular course of training, should be given facilities for an abbreviated course, so to speak, say of six or twelve months, to be fitted for practical nursing. However much such a plan may be discountenanced by the trained nurses themselves, it strikes us as being well conceived, indeed, and as meriting the support of physicians all over the country.

Every physician knows women whom he likes to have around with his sick because they have the gift of obeying orders, of making the patients comfortable, of saving the family from disintegration and, if only periodical, disaster. These women might become much more useful by taking a short course of training. They have it in them to become a blessing and a Godsend to many patients who without such practical help would have to forego the assistance of any nurse whatever. We are distinctly in favor of Doctor Robertson's plan, and hope that something will come of his suggestion.

CREDULITY AND CURES

Frederick Peterson, M.D., New York

The psychology of credulity is the main theme of this article—not credulity in general as applied to various religions, philosophies and political tenets—but credulity as related to the treatment and cure of disease, to the art and science of medicine. Why do people believe in “patent medicines,” in all sorts of systems of healing, and quite generally also in doctors of medicine? Why do physicians often pin their faith to special methods and special medicaments? The general principles that govern faith, opinion, conviction, act also here; but an unusual factor in the field of medicine is the extraordinary complexity of the human body and mind. We often compare the organism to a machine; but even the most intricate machine is simplicity itself compared to the human body. On the one hand, we have metals and mechanics that almost anyone can understand, adjust, repair and run; on the other, we have such a combination of sixteen elements in the greatest of chemical and physical laboratories, such complexity of anatomy, such intricate processes of physiology, and the whole permeated by spirit, by psychology and the mutual reaction of body and mind—all having occupied nature a hundred million years to build—that it is small wonder that even the greatest students and experts in this field of work cannot grasp it all, are dismayed at the difficulties they meet, and rejoice if a lifetime of work may chance to wrest one tiny fragment of new and permanent knowledge from the great mass of the still unknown. The healthy organism is difficult enough to know and to understand, but when we have added to this the innumerable diseases that develop within the body and the scores of invisible and intangible enemies that attack it from the outside, the problem grows colossal, and it is no wonder that people in general, no matter how erudite in other directions, have not the smallest conception of the problem of medical therapy.

The more one knows of a subject, the more critical, even skeptical, one becomes. If one knows nothing of a subject, the soil is prepared for faith, preconception, conviction. The great majority of illnesses are temporary, self-limited, and tend to recovery by nature unassisted. It is not surprising, then, that when an intelligent professor or learned clergyman happens to take, during such a spell of illness, a packet of cottage cheese, carefully powdered, with a long Greek name, his prompt recovery should fill him with a profound conviction of the value of the remedy. He has this one convincing case, and its being his own lends a strong personal note to his recom-

mendation of the agent to his friends. In fact, he becomes an authority by a single case, commends it to others, and even writes letters of his experience for use by the advertisers.

The physician works differently. If he observes good effects from a remedy in one case he tries it on others, and if it works well on twenty or thirty or perhaps fifty patients, he will call it to the notice of other physicians by publication in a medical journal. Others are thus led to try it, some with similar success, some with critical reservation based on exceptional experience and conditions. Gradually, after use in thousands of cases and perhaps through the years by thousands of physicians, a new remedy takes its place in the pharmacopeia with a record of all the facts as to its utility and its limitations. If it is thus that the hard-won truths in regard to all small armamentarium of really useful therapeutic agents have been wrested from the years.

Credulity Among the Laity

General intelligence, even great scholarship in all directions outside of medicine, is no criterion for judgment in the matter of means and methods for curing disease. Of Berkeley, one of the greatest minds of England, a philosopher, a scholar, it was said, "Ancient learning, exact science, polished society, modern literature and the fine arts contributed to adorn and enrich the mind of this accomplished man." He was a distinguished bishop as well as an illustrious scholar. But he discovered an elixir of life made by mixing a gallon of water with a quart of tar, leaving it for forty-eight hours, and pouring off the clear water. One of his essays which ran through many editions was "On the Virtues of Tar Water." Having tried it on himself and his family, he was so sure of its efficacy that he felt it a duty to announce the wonderful discovery to the suffering world. Twenty-five fevers in his family were cured by this medicinal water. He recommended it as a preventive and alleviator of smallpox. It would cure impurities of the blood, coughs, pleurisy, pneumonia, erysipelas, asthma, indigestion, hysteria, dropsy, scurvy and hypochondria, and was of great use in gout and fevers, a preservative of the teeth and gums, and a substitute for all diet drinks and mineral waters. He forestalled criticism by saying, "Effects misimputed, cases wrong told, circumstances overlooked, perhaps, too, prejudices and partialities against truth, may for a time prevail," and furthermore, "Men may censure and object as they please, but I appeal to time and experiment." It is needless to say that the appeal of this wise and great man has been answered. Tar water is forgotten. I merely refer to this shining example

because the same psychologic reaction to cures for diseases has been manifested often since the time of Berkeley.

Even at this moment, a quite new method of therapy is being widely exploited by distinguished scholars, who, if not as able as Bishop Berkeley, still have immense influence on the academic circle of their time. An Australian music teacher by the name of Alexander has adopted a system of cure of diseases in general which would seem to be a cross between massage and chiropractic. He has written a book entitled "Man's Supreme Inheritance," describing his theories and results, and this book is now having a huge circulation in this country. Prof. John Dewey, one of the most distinguished educators in the world and a professor of philosophy in Columbia University, writes a laudatory preface to the book. The Atlantic Monthly, in its April number this year, gave the method seven pages of free advertising in the shape of an article by Prof. J. H. Robinson, professor of history in Columbia University, entitled "The Philosopher's Stone," which he found in the Alexander method after "a lifelong personal experience of physical and mental depression." He says:

"I am not telling my plain tale because I happen to have been redeemed in body and soul through Mr. Alexander's method, or because I have known others to be so redeemed. I think his ability to straighten out adults and give them new energy and courage is very important, but by no means so important as the possible application of his theories in the field of education, by which it seems as if it might be possible to raise the whole race to a far higher plane than it now occupies."

Now, what is the method? A careful search through the book affords no clear account of what the author does or how he does it, but leaves the reader naturally to infer that the only way to recover from his malady is to consult the author himself, who practices in London six months and in New York six months.

From this book of well over 300 pages, one obtains with difficulty a limited general outline of the method of the new cult. I judge it is not intended that any but the writer should be able to employ this new cure, so that the patient to obtain his supreme inheritance would have to pay doubtless a considerable inheritance tax. However, one gathers by careful reading that the first principle is to establish a normal kinaesthesia by placing the patient in a position of mechanical advantage which induces a perfect system of natural internal massage such as has never before been attained by ordinary methods, and which is extraordinarily beneficial in breaking up toxic accumulation, thus avoiding evils arising from auto-

intoxication. (This is almost word for word.) By the use of his special technic, the author claims to have cured paralysis, varicosity, tuberculosis, asthma, adhesions of the lungs, hemorrhage, congenital and other malformations, effects of infantile paralysis, many varieties of throat, nose and ear trouble, hay-fever, chronic constipation, incipient appendicitis, and colitis. I quote his own list. He anticipates the regeneration of mankind through his scheme of physical therapy.

Thus, we see that the assertions of an authority carry conviction to hundreds of listeners and thousands of readers, and establish credulity in mankind. It does not matter whether the authority be an expert in philosophy, religion, education or history, what he says about a panacea for disease believed in by himself will induce belief in others. The assertion of authority is a powerful suggestion to believe, but a bare assertion by anyone, even by a newspaper advertisement or the label on a bottle of "patent medicine," acts also as a suggestion to arouse credulity, as psychologic experts in advertising have been delighted to find.

Another factor in credulity is that we are so constituted as to be tremendously inclined to believe in what we would like to believe. When a man is ill there is nothing he desires more than to get well. This predisposes him at once to faith in any promise of cure.

And still another feature in cures is mystery. The commercial and therapeutic value of a "patent medicine" is secrecy as to its ingredients. Tar water was too plain and simple to live long. If it had had an incantation said over it, if it had to be concocted at the conjunction of some planet with the moon, if it had had some high-sounding name, like Golden Discovery or Sanatogen, it might be alive today. This is true not only of medicines, but also of other methods of cure. The religious mystery associated with Christian Science and the phenomena at Lourdes, the elaborate psychologic discussion in connection with "new thought" and mind cures, the anatomic dissertations on the spine and circulation in the advertisements of osteopaths and chiropractors, the rodomontades of men who write books like "Man's Supreme Inheritance," all these dealing with the mysterious, the occult and the unknown, make a wonderful appeal to that instinct of faith in those who are utterly ignorant of the significance of the theories suggested or terms used; and if one recovers by employing one of these methods, as often happens, since most diseases are self-limited and get well of themselves, the personal experience fixes a faith in the means that cannot be shattered. If you add to this personal experience the psychologic fact that once a conviction is firmly established in the mind of a grown man, it is almost

hopeless to dislodge it, one learns to understand the credulity and gullibility of the race in the matter of panaceas for its ills. No one will easily give up an opinion when it will show him to have been wrong, even foolish. No amount of argument could have upset the belief of the brilliant Berkeley in tar water, nor could we swerve Professor Dewey or Professor Robinson one iota from their faith in a "readjustment which will establish normal kinesthesia" in their anatomies.

Now, I do not believe the medical profession has any quarrel with all these cults and methods, certainly not as to the good they may accomplish in some instances, but only so far as they may be hurtful or pernicious or untrue. We do object to the sale of secret "patent medicines" to the gullible public, even though they, too, may cure at times, because they have often contained dangerous ingredients such as morphine and alcohol, and because they too often lure the people into false hopes and to cruel disillusionments. This is especially true of the much advertised tuberculosis, cancer and epilepsy cures. We do not object to cures by Christian Science—we welcome cures by any method whatsoever, so long as they are cures—but we do object to the denial of the existence of disease and interference with its prevention in such disorders as smallpox, diphtheria and typhoid fever. It would be idle to deny the recovery of patients under treatment by osteopathy and chiropractic, knowing what we do of self-limited diseases and the power of faith; but we have all encountered the evil results of their indiscriminate use, and deprecate their employment as a panacea by the unskilled and the ignorant. In the matter of the new cult of "readjustment to establish a normal kinesthesia," the physician cannot accept as evidence the testimony of its one practitioner, or any of the evidence of those who claim to be cured by it, as decisive of a new advance in therapy—for all this evidence is combated by ages of experience in similar exploitations. The truth is that medicine is a great and difficult and progressive science, and that its truths are the results of the sifting of the centuries. No doubt all the cults and fads and fancies that have had and are having their day contribute something to the sum total of medical knowledge. Homoeopathy, which is now little practiced, doubtless helped to diminish drugging. The numerous mind cures have done good by awaking the profession to a greater realization of the importance of the mind in every therapeutic procedure, though this idea is not new, having been well described by Plato in his Charmides. The various schemes of manipulation of the body by massage, osteopathy, Zander apparatus, etc., have made valuable additions to our knowledge of physiotherapy.

Credulity in the Medical Profession

Now, after this resume of the many features of credulity among the laity, I approach with some trepidation and a feeling of delicacy the subject of credulity in the medical profession itself. We, above all others, should be hypercritical, should make a cult of skepticism in therapy. But do we? No one knows so well the extraordinary progress in all branches of medicine, especially during the past fifty years; no one knows so well the tremendous difficulties and complexities encountered, the mistakes made, the old paths retraced or abandoned, the amazing vistas opened. All these experiences should make the doctor of medicine, in particular, a profound skeptic, and happily also we may well believe an optimist.

I am afraid, however, that we, too—just because dazzled by the effulgence of so many new discoveries—share, in a measure, the credulity of the public in remedial agencies. We see their errors plainly, and sometimes they see ours; but do we see our own? The same psychologic factors are at work in us as in the general public for the creation of faith in the new drug or in the new method. We do not know enough about it to be sufficiently critical. This ignorance of ours prepares the ground for the new belief, the new conviction. Its value is asserted by authority. And we are eager to believe in the new hope of help held out to us for the healing of the sick. Then, again, there are the marvelous mysteries behind all the new names—hormones, opsonins, endocrines, amboceptors, etc.—such a wide field for new facts, such a vast horizon for new theories. We can hardly be blamed for not being always able to get our bearings in these uncharted seas.

It has interested me to go over in this connection some of the therapeutic measures heralded to the profession with more or less vehemence of assertion during my own day. Some of these have already passed into oblivion. When I began practice, clitoridectomy was a reputed cure for many nervous disorders. One scarcely hears of it now. About that time, too, surgeons were competing for their first hundreds in ovariectomy, an ovarian disease, but for some theoretical relation to epilepsy, insanity and the psychoneuroses. Around that period the rhinologists came into their own with the turbinated bone obsession. I suppose the reason one hears so little of it now is that most of the turbinated bones of our generation were removed. Turbinated bones have gone out, and submerged tonsils have come in. In Vienna many cases, especially those of nervous disorders, were cured by magnets applied to the spine. Electricity had a great vogue, and large static and other machines were a part of office equipment. One rarely sees them now. For a time, suspension of patients with

locomotor ataxia on the theory that stretching the spine affected favorably the fibers in the posterior roots had vogue, and it was rather startling to enter a clinic, hospital or doctor's office and see one man or several men hanging by the head from a miniature gallows. The passing of urethral sounds for the cure of locomotor ataxia had a brief but meteoric career. There was a good deal of trephining for microcephalia, under the impression that the brain would grow if it was given more room; the trephining was done for a time in general paresis, but abandoned for good reasons in the course of time. The rest cure had a comparatively long life among remedial measures, and it had behind it great authority and much good logic; but as a cure it owed its success chiefly to the psychotherapeutic genius that launched it into existence. Except for the reverberations of his dicta in remote places, it is not employed nowadays, the antipodes of his teachings, namely, exercise and occupational therapy, taking its place. I suppose very few drugs have had such a rapid rise and sudden drop into the medicinal limbo as crotalin, exploited for epilepsy. It ended like the skyrocket. Perhaps I should mention here in connection with crotalin, *Bacterium cinnamicum*, which caused so many epileptics to have their colons reduced to semicolons by operation. This germ is extinct, along with the general paresis germ discovered in Scotland some years ago. I presume many recall a series of volumes entitled "Biographic Clinics," by which the enthusiastic author, an ophthalmologist, sought to prove that the majority of diseases were due to eye-strain and could be corrected by prisms. He was very bitter against certain of his confreres who believed in the same etiology of human illness, but who insisted quite violently on the cutting of the eye muscles by a long series of delicate operations to remove eye-strain. The originator of the latter method was awarded a prize by a distinguished foreign medical society for his great contribution to science!

Our past experience should lead us to be extremely cautious and skeptical in the presence of many of the therapeutic measures before us now. Leaders, despite their great intelligence and high position, often stampede the rank and file of us like sheep. Our leaders are very human and subject to the sway of the personal equation. I know one general consultant who seldom makes a diagnosis of anything except hypothyroidism or hyperthyroidism; in fact, I believe that he must in his mind have classified the whole human race as superior and inferior thyroids. I know another who does not see ordinary things in the ordinary light of day, but by a prismatic light; he sees them through the rainbow of the endocrines.

Surely, so much pulling of teeth, so much removal of submerged tonsils, is not justified by results. At least I feel so from the many cases of psychoses, nervousness, sciaticas, neuralgia, spinal pains, cervicobrachial neuritis, and the like, which have come under observation after such treatment had proved futile.

I am glad to see a growing skepticism with regard to Wassermann tests. They are of real value as corroborative of clinical findings; but when these are in doubt, the Wassermann tests should be controlled by reports from three different laboratories. It is not long since a single laboratory test was considered final, and that despite the presence or lack of clinical evidence.

Psychanalysis

I shall close with a few words as to psychanalysis, on which subject I am qualified to speak, for I know Freud and Jung personally, have examined the method practically, and have or have had a number of practitioners of this cult as my friends. It has taken a considerable hold in America—though not so much in Europe—and owing to the fact that many reporters and writers are psychopaths and have undergone treatments by psychanalysis, these doctrines are now frequently encountered in editorials in newspapers, magazine articles and a few books by mediocrities. The theories of Freud and Jung are to psychology what cubism is to art—new, sensational and rather interesting. If they were not so pernicious in their application, as well as untrue in psychology, I should say nothing of them; but let them take their place in our historical medical museum along with all the other curiosities which the centuries have accumulated. In a few years they will be catalogued in that museum. I doubt if any persons have been benefited by this treatment. It requires months or years of work over each case, and it is very expensive. I have, on the other hand, seen very bad results from the psychanalysis of young women and men, permanent insanity, even suicide; and if it were not destined to be so short-lived I should advocate a law to prevent its employment in the treatment of young people.

There is only time to touch on one or two of the more salient features of the Freudian theories. One of the most prominent is, for instance, that every dream is the fulfillment of a wish. This is a kind of harking back in a very crude way to the philosophical speculations on the world as will and presentation of such men as Berkeley, Schopenhauer and von Hartmann. If there is one clear fact in the psychology of our daily life, it is that the essential function of the mind is its ability to deal with the future. It is anticipation of the future

that guides our conduct, plans for us, chooses, distinguishes the right paths from the wrong paths that we are to follow, and the ways that are favorable to progress from those that are unfavorable. Our memories are our experience on which we base our life to be; the present is a point, the future is everything. This is true especially of youth, which is fullest of anticipation of the future, a long preparation for all that is in store. Hence our minds are always full of anticipations in our waking life—hopes, desires, wishes, plans, ambitions, aspirations, as well as fears, timidity, anxiety, dread, suspense. Naturally, our dreams, which are a sort of ungoverned replica of our waking thought, but with a wider horizon of memories, reflect in a moonlight kind of way the thinking processes of our day. These anticipations come to us in our dreams. Sometimes they are pleasant; sometimes, anxious and apprehensive. Now, Freud, observing that his children usually dreamed of pleasant things anticipated—the theater, toys, country trips—quite arbitrarily jumped to the conclusion that a dream is the fulfillment of a wish. Then he said all dreams were a fulfillment of a wish, and as the obsession grew in his mind, he decided it must always be a sexual wish, however disguised. When confronted with fear and anxiety dreams, he had to invent words like distortion, disfigurement, displacement, etc., to twist around an easily explicable dream, easily explicable by study of the normal anticipations of the mind, to make such a dream in some extraordinary manner fulfill a wish. When a friend of his, after hearing him lecture on this subject, came to him triumphantly with a fear dream, wholly opposed to his theory, Freud suddenly exclaimed, exultingly, "You had this dream just to confute my theory. That was the hidden wish." The Freudians will talk to you much about an elaborate symbolism which is wholly their invention. There are no symbols in anybody's dream life which were not first present in their conscious life. The Freudian makes the claim that all the arts, and in fact all our civilization, had its origin in one drive, the sublimation of the sexual. The reader will remember that Rabelais had Pantagruel meet one Gaster in his travels, who claimed that all the arts, powers, accomplishments of our civilization were the sublimation of the desire of the stomach. One theory is as good as the other. They are both Rabelaisian. If one reads the analyses made by the psychanalysts, one will find a complete revelation there of the type of mind of the analyst himself, his intelligence, his logic, his symbolism, his character; indeed, one will learn much more of him in this way that one will of the unfortunate patient the analyst thinks he is studying.

Conclusion

Most of these methods of cure are in the past. They are a part of our experience, and of certain value as such, although mostly of a negative value. Of course, this has been more than counterbalanced by enormous accessions of positive value during the same period of time. But these errors have a lesson for us today. We must try to take a middle path, if that is possible in the presence of new theories, to be broad enough to know that there are great mysteries in our complex organisms and all the sciences that have to do with them, to feel that precious discoveries are always before us awaiting some Cortez or Columbus, and therefore not to be too prejudiced to weigh, ponder and examine and at the same time we should cultivate the critical faculty.—Jour. A. M. A.

20 West Fiftieth Street.

NEWS ITEMS

Dr. M. E. Eastman has changed his address in San Francisco from 525 Turk Street to 946 Geary Street.

Dr. J. J. Entz, Hillsboro, Kansas is County Health Officer and has discontinued private practice.

Dr. W. E. Daniels, formerly of New Madison, South Dakota, and a former president of the National Eclectic Medical Association, has moved to 266 Lindero St., Long Beach, California.

Dr. A. P. Baird, Los Angeles, is taking an extended vacation for the benefit of his health and in the meantime, Dr. Fred Bantum and Dr. Ruth Wirick-Bantum are occupying his offices on Eagle Rock Avenue.

Mrs. Roath, wife of Dr. Clinton Roath, Los Angeles, has returned to her home from the Westlake Hospital convalescing from a major operation.

We hear indirectly of the death of Dr. H. V. Riewel, a former practitioner of Oceanside, California, but who left that location more than two years ago.

Dr. M. Blanche Bolton-Wilson, who formerly practiced in San Pedro for many years and who retired from practice three years ago because of ill health, is living on a ranch near El Monte, California.

Dr. A. F. Stephens, Holtville, California, is anxious to dispose of his practice that he may go East for post-graduate work. It is a good location, although the summers are very warm.

Dr. T. C. Young, Glendale, is building a beautiful new home in that city. The doctors of that place are finding it to be a great inconvenience since Thornycroft Hospital discontinued taking surgical cases.

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:: Original Contributions ::

SURGERY OF THE KIDNEY

Dr. O. C. Welbourn, Los Angeles

Read Before the California State Eclectic Medical Society.

The subject which has been allotted to me by the chairman of the Surgical Section is a very large one and might readily occupy the entire time of this meeting. But I am sure such was not his intention and I have no thought of attempting to cover the subject as a whole or even one particular operation. Rather do I intend to suggest that operations upon the kidney are not the bugbear that we once thought they were. A couple of decades ago it was taught and generally believed that any operation upon the kidney was liable to be followed by a total suppression of urine. This much-feared complication, added to the usual dangers and complications of a major operation, caused the kidney to be avoided except as a last resort. My personal experience leads me to conclude that such an attitude was extreme and not justified by the facts. Not only do I believe that the dangers of the operation have been exaggerated, but I also believe that the end results are as satisfactory as those following work upon any other abdominal organ. A calculus causing suppuration in the kidney may be compared to a calculus causing suppuration of the appendix. In each case the patient has a fatal illness. Both are strictly surgical and usually indicate a removal of the diseased organ, together with the offending concretion. Septicemia is equally marked and medicines equally useless prior to the necessary operative interference. Skillful post-operative care is required in each case and both patients are left permanently damaged. But should these operations be performed before suppuration has developed, the danger is small and the recovery perfect. The same compari-

son might be extended to chronic appendicitis and floating kidney. Neither is a serious operation, as major operations run, and in the end results are very satisfactory. I am aware that the suspension of the kidney has fallen somewhat into disrepute because of the tendency to a recurrence, but I believe this result is owing to a faulty technic. For several years I have used the lower fourth of the capsule as a hammock in which to suspend the kidney to the fascia, with the result that it "stays put" unless the patient meets with a severe fall. This operation also suspends the ascending colon—a very important matter. The operation as I now perform it is original.

Tumors, either malignant or benign, are occasionally met, but, even so, are no more hazardous than when found in other abdominal organs. Tuberculosis is always a formidable disease, wherever found, but when limited to one kidney it is curable by a Nephrectomy, and not infrequently a Nephrostomy will do the work. Before removing one kidney it is necessary to determine that there is a second, because a few patients have but one. May I also suggest that when an operation upon the kidney is indicated it should be done at once, just the same as any other operation. Procrastination increases the hazard—sometimes being the direct cause of a fatal termination.

GELSEMIUM

J. A. Munk, M.D., Los Angeles, Cal.

(Read before the California Eclectic Medical Society.)

My first favorite remedy after I began to practice medicine in 1870 was Gelsemium, and it has been my favorite medicine ever since. I have found it good for so many things that I regard it as indispensable to a successful practice. If for any reason I should ever be restricted to the use of a single medicine, Gelsemium would be my choice.

It is the remedy for *sthenia* and its use is, in a measure, indicated in all acute diseases. Given in any case of nervous excitement, or increased functional action of the vital organs, its beneficial effect is soon manifest. It may well be called the universal sedative, or febrifuge, as it is useful in the early stages of all fevers. It is also a valuable soporific, nervine, relaxant of nervous tension, and antispasmodic, and the physician who has ever used it once will use it again.

It not only acts promptly when the specific indications of "bright-eyes, flushed face, contracted pupils, increased heat of

the head and general headache" are present, but it is a suitable remedy in all fevers and inflammatory diseases when no other remedy is specially indicated. Under its kindly influence the vascular excitement is soon controlled and the burning fever subdued. The active brain and nerves are soothed and the patient falls into a quiet sleep.

Its physiological action is pronounced if given in large doses, first affecting the eyes by causing disturbed vision, which is immediately followed by drooping eyelids, the muscular relaxation extending rapidly to all parts of the body. By some the agent is regarded as a poison, but I do not consider it dangerous. I have used it freely for many years and have never seen or known any harmful results.

The dose of Colloidal Specific Gelsemium, which is the most perfect preparation of the drug on the market, ranges from one to thirty drops, repeated according to the effect produced. Except in case of an emergency, when a big dose is required and its full effect desired, the medicine is best prepared after the customary Eclectic fashion of mixing it with water, or other suitable vehicle, and given in small, frequently repeated doses for its gradual influence.

When the nervous system is overwrought and the patient is nervous, restless and wakeful, Gelsemium should be administered in full doses until nervous and muscular relaxation are produced. The full adult dose of the drug is thirty minims, or half a dram, but some large physiques require more. Even a teaspoonful is not too much in some cases; and in a desperate case the large dose should be given without hesitation. When the medicine has done its perfect work, the nerves become quiet and the muscles relaxed and flabby. A patient who won't stay in bed when he ought to be there is readily held hors de combat by filling him with Gelsemium.

It is a remedy to be thought of and used in any desperate case of convulsions, cerebro-spinal meningitis, eclampsia, mania and hydrophobia, or in any case where there is great cerebral excitement, or strong muscular contractions.

There is no other remedy equal to Gelsemium to control spasms in children, but it must be given in sufficient quantity to relax the muscles and put the little patient to sleep. It is surprising the amount of this medicine which is sometimes required in such cases to produce the desired effect.

A single dose of Gelsemium taken at night on going to bed will invariably break up a fresh cold; and if the patient is troubled with insomnia it will produce an all-night, sound, refreshing sleep. Taking the dose just before retiring avoids

experiencing any unpleasant effect, which, if it should develop, is not felt, as it passes off during sleep.

It is not depressing to the heart, and if more Gelsemium and les Asperine had been used in treating the "flu" there would have been fewer deaths from collapse.

BIOGRAPHY OF RICHARD ERNEST KUNZE, M.D.

J. A. Munk, M.D., Los Angeles, Cal.

Richard Ernest Kunze was of German-French parentage and was born in Altenburg, Saxony, April 7th, 1838. His father, John Jacob Kunze, was of an old Thuringian family and held the position for life of Court Horticulturist to Duke Joseph. His mother, Adelaide Collen, was the daughter of a French refugee.

Richard was the youngest of six sons and early showed an aptitude for scholarly pursuits. He went to school at the age of seven and received private instruction until he had completed his fifteenth year. Latin, Greek, French and English were included in his studies, but he never had the opportunity to take a university course. He took a lively interest in the natural sciences and received instruction from Schlenzig, the lepidopterist, Professor Apetz, the entomologist, and Karl Brehm, the ornithologist and African traveler.

Being unable longer to attend school, and bent on earning his own living, he engaged for a short time with his brother-in-law in the mercantile business; but this work did not suit him and he soon gave it up.

After his father's death in July, 1853, he decided to emigrate to America. On the third of September, 1854, he took passage for New York and shipped in the slow sailing bark Eliza from Bremerhaven, which journey occupied seven weeks. An inexperienced youth of sixteen, he fell an easy prey to thieves upon landing, who soon took all his money. He made his way into the country, where he found employment as a farm hand, which enabled him to learn the ways of the people and to speak the English language fluently. During this time he formed the purpose to study medicine, when he returned to the city and became a student of Dr. Charles J. Stearn, who also gave him instruction in medical botany and pharmacy.

He married Miss Ann McNamee, a native of Cardiff, Ireland, September 30th, 1857. There were no children born to this union.

In the same year he entered the Metropolitan Medical College and graduated in 1859; and again, from the New York Eclectic Medical College in 1868. About this time he became connected with the various Eclectic organizations of the city and state, and in 1871 he joined the National Association.

In 1875 he published his first monograph on Cactus, in which he gives a full description of the plants and calls attention to their value as a medicine in heart disease. This was followed in 1876 by a second publication, entitled "*Cereus Grandiflorus* and *Cereus Bonplandii*," that was accompanied by several fine colored drawings which were his own achievement. Two more papers followed in 1877, on "*Cereus Triangularis*" and "*Phyllocactus Grandus*," and three others, on "*Cereus Macdinaldiae*," "*Cereus Serpentinus*" and "*Cereus Rostatus*," in 1878. All of these papers were printed in the annual transactions of the New York Eclectic Medical Society. These various treatises comprise the most valuable literature extant on cactus. During these years he read many papers on medical, botanical and entomological subjects before various societies, which were printed in transactions.

The high esteem in which Dr. Kunze is held by the medical profession was evinced, recently, during the forty-ninth annual meeting of the California Eclectic Medical Society, when Dr. A. P. Baird read a paper on Cactus, in which he referred to the invaluable service that the Doctor rendered in developing its therapeutic virtues. He declared that this benefit to humanity was a more lasting memorial than any monument that could be carved from wood or stone.

Dr. Kunze wrote and spoke in several different languages and was a frequent contributor to scientific journals. He was an active member of the Torrey Botanical Club, an organization that met monthly in the Herbarium of the Columbia University; and likewise, was a charter member of the College of Archaeology and Esthetics, an institution also of the city of New York, incorporated in 1880. A pamphlet written by him on the "*Germination and Vitality of Seeds*" was published by the Torrey Society.

The death of his wife was a heavy blow and completely changed the current of his life. He forsook the haunts of men and wandered far afield to be alone and to commune with Nature. Being dissatisfied and his health failing, he sought relief, further, by making a complete change of environment. He left New York in December, 1895, and spent some time

in Colorado, but failing to find the benefit he craved, went to Arizona, where his health improved and the conditions were more to his liking.

He settled on a small ranch near Phoenix, where the weather was pleasant and he could spend his time comfortably out of doors growing fruit and cactus. He was extremely fond of the desert and spent much time in exploring its mysteries. Many new kinds of plants and insects interested him and he reveled in the abundance of his favorite plants of the cactus family which the desert produced. He discovered and described several new varieties of cacti, which were named by N. L. Britton and J. N. Rose, government botanists, as the *Opuntia Kunzei*, *Echinocereus Kunzei*, and *Echinocactus Arizonicus*.

He spent much of his time in gathering and growing rare specimens of cacti, which he shipped to foreign lands. Nearly all of the cactus plants found growing in European gardens during recent years were furnished by him, which occupation gave him a good living. When the world war broke out ocean traffic and the cactus trade ceased to exist, which affected his finances seriously and left him almost stranded. He contributed articles regularly to the *Monatsschrift für Kakteenkunde* in Berlin describing the plants that he sent abroad.

Dr. Kunze was an unusually active, industrious and studious man and an original investigator of different problems. He could earn money, but never accumulated much, as he was always ready to spend it on anything which promised to promote his experiments. His life was a series of struggles with hardships that would have discouraged most men, but he was not disheartened and never complained. In physique he was tall, slim and angular, and his voice was strong and strident.

His writings have been collected in a group of *Kunziana* and filed in the Arizona Library of the Southwest Museum, Los Angeles, California. The last article from his pen on the Cactus Flora of Arizona was written in 1915 and published after his death, in the *California Eclectic Medical Journal*, in May, 1919. The complete manuscript of a book on *Materia Medica*, not yet printed, is also shelved there.

Dr. Kunze died in his eighty-first year, at his home near Phoenix, Arizona, on February 7th, 1919. He was nearly helpless for some time before his death and his mind seemed to be somewhat clouded, as he did not always recognize his friends when they called to see him. He lived very plainly and spent much of his time alone during recent years.

URETHRAL STRICTURE: PATHOLOGY AND TREATMENT

G. Allen Rowe, M.D., Buffalo, N. Y.

While I may not be able to tell you anything new or startling about urethral stricture, yet the subject is one of so vast importance that I think certain phases of it may at least justify a brief review. The text of this paper shall be confined more particularly to the pathology and treatment of stricture without considering its etiology or symptomatology. I do not deem it necessary to do more than merely mention spasmodic, irritable or large calibre strictures because in those forms the sub-epithelia leuxudate has not yet become organized into connective tissue and consequently can be easily cured with comparatively simple remedial methods. It is the organic forms of stricture which inflict such fearful injury upon the human race and the cure of which crucially tests the knowledge and skill of our most experienced practitioners. In order to successfully treat a true organic stricture of the urethra it is essential that a clear conception of the pathological conditions be kept in mind.

Pathology

Stricture is an unnatural reduction of the calibre of the urethral canal attended with changes of the mucous and muscular structures of its walls. These changes vary from an induration or thickening of the mucous membrane with proliferation of deep connective tissue to the formation of dense cicatricial tissue which involves the corpus spongiosum. Indeed, the corpus spongiosum is involved in practically all forms of organic stricture. The constriction itself may vary from a very small, cord-like band, **linear** stricture, to a slightly broader one, **annular** stricture, or to a constriction two or three inches wide, **tortuous** stricture. In all kinds of strictures there is always thickening and desquamation of the epithelial layer, and the cylindrical epithelium is frequently transformed into the stratified, pavement form. Indeed, almost all forms of transition may be noticed in the epithelial cells. The arteries of the spongy portion often show endarteritis or periarteritis, which may obliterate the vessels. The glandular and lacunar lesions are constantly causing fibrous nodules to form in the spongy portion. These nodules, of course, destroy the normal caliber and functions of the urethra and often result in periurethral abscesses, false routes or fistulous tracts which terminate in blind pouches. These tracts

are lined with pavement epithelium, and in closing them it is necessary to extirpate the whole tract or destroy them with the cautery. The opening of the urethra at the seat of stricture will be found in the roof of the canal rather than on the floor. The dilatability or consistence of stricture depends largely upon its age and amount of fibrous and elastic tissue.

Section of an annular or tortuous stricture shows a more or less imperfect ring of new inflammatory tissue, whose limits taper down gradually. This tissue is hard, yellowish-white near the lumen and darker peripherally, where reddish islets or seen, the result of hemorrhagic infarcts which form foci for new inflammatory tissue. Complete obstruction of the urethra is quite rare and perhaps never occurs except from some extensive trauma.

Treatment

We now come to what I deem the most important part of the subject of stricture, especially so far as the patient is concerned, and that is its treatment. The history of the treatment of organic stricture is replete with failures. Personally, I do not think too frequent failure to cure stricture is warranted, and from my viewpoint is indicative of carelessness, inexperience, faulty methods or possibly an imperfect knowledge of the condition on the part of the operator. Numerous methods of cure have been suggested and tested by surgeons of all nationalities with varying degrees of success. I shall briefly mention a few of those methods.

The use of steel sounds as a cure for organic stricture dates back many years, and while justifiable in some instances will probably not cure 5 per cent of cases. In the spasmodic variety or those of large calibre the judicious use of sounds will often afford marked relief and will even cure some cases; but in strictures of small caliber or those commonly classified as organic, I doubt whether a single cure was ever effected with sounds. I hardly think it would be entirely fair, however, to place all failures to the credit of sounds themselves, because my observation is that a good many physicians and surgeons are very careless in using sounds and often use them improperly. It is no uncommon thing for patients to manifest a feeling of terror at the sight or suggestion of the use of a sound, owing doubtless to some former disagreeable experience. Such experience is seldom warranted because under ordinary circumstances, and with reasonable skill, the introduction of a sound should be accomplished practically without pain and without shock. In an irritable urethra an injection of a teaspoonful of a 5 per cent solution of cocaine will

enable the operator to insert the sound without pain and without frightening the patient. I would remind my fellow physicians that the medical profession cannot justly claim a complete monopoly of public confidence, and it behooves physicians and surgeons to make good their claims and not admit of too frequent failure or frighten patients so they will seek relief from other sources.

My experience is that the best results are obtained, as a rule, from using the sound about once a week. Many surgeons advocate its use every day or every other day, but I think that entirely too often. I cannot conceive of a case in which a sound should be used every day.

Electrolysis—Some years ago electrolysis was heralded as the ideal cure for impermeable stricture, or those of small calibre, but the results have fallen far short of expectations. It must be admitted that the subject of electricity is not wholly understood, and that fact makes it a rather uncertain quantity to deal with so far as a curative agent is concerned. Then, again, its use must cover a period of from one to four months, which renders it impractical, especially for those living at a considerable distance from the operator. My own judgment as to the proper method of curing stricture is by the process of absorption, but thus far no thoroughly reliable method of absorption is known. Perhaps a more thorough knowledge of the therapeutic action of electricity will warrant a more general adoption of its use as a radical cure for stricture, but our present knowledge of its action certainly does not justify such a step.

Internal Urethrotomy—Of all methods employed for the radical cure of stricture at the present time that of internal urethrotomy affords by far the most satisfactory results. This is especially true so far as my own experience and practice go. In my earlier urethrotomy operations the results were by no means satisfactory, but I think the failures can be attributed principally to inexperience and lack of skill on my part. The ratio of cures in my first cases scarcely exceeded 60 per cent, but gradually it rose to 70 per cent and 80 per cent, and finally, in my last series of 100 cases, it reached the gratifying result of almost 92 per cent of cures. This is the best record I have ever been able to obtain, and while I have not been able to reach the 100 per cent mark, yet there has been a steady approach to it. Whatever success I have had I do not attribute so much to superior skill as to a faithful observation of technique as well perhaps as to a favorable series of cases.

Indications for Urethrotomy—Some operators do not advise internal urethrotomy on strictures of the membranous

portion of the urethra, claiming that external urethrotomy affords better results. My own experience does not support this claim. On the other hand, I advise or recommend internal urethrotomy in all cases of stricture, and at all parts of the urethral canal through which the urethrotome can be passed. Results from internal urethrotomy have proven incalculably better in my practice than any other method. Fibrous, resilient, irritable, large or small calibre strictures can all be relieved or cured by internal urethrotomy, but resilience and resistance to dilation are the strongest possible indications for a cutting operation. Strictures of the meatus and fossa navicularis do not respond satisfactorily to dilation and should always be cut. The incision should be made in the median line on the floor of the urethra and deep enough to overcome all resistance to the sound. Bleeding from this point may be checked by packing the fossa with iodoform or boracic acid gauze.

Technique—My usual method of procedure in an ordinary urethrotomy is about as follows: For a few days preceding the operation the patient, if possible, should be placed upon an antiseptic and mild diuretic treatment, of which the following is the best I have found: \mathcal{R} Specific gelsemium, 1 drachm; acetate of potash, 1 drachm; water 4 oz. Mix. Sig. Dose, teaspoonful four times a day. Five grain doses of salol four times a day will thoroughly asepticise the alimentary canal. The urethra and bladder are rendered antiseptic by irrigations of boracic acid 1 to 100, alternated with bichloride 1 to 5000. The urethrotome, sounds and all other instruments, except soft catheters, are immersed in a solution of carbolic acid 1 to 40 from one to two hours before the operation. As a local anesthetic I have found nothing better than a 3 per cent solution of cocaine retained ten or twenty minutes before operating. I have used this solution for about twenty years in a very large number of cases without a single unfavorable result. Sometimes there is slight cyanosis, sweating or faintness, due to the physiological action of the drug, and if it is rather marked I give a teaspoonful of whisky hypodermically or an ounce per oram. A laxative is given the evening before operation.

Operation—The success of an internal urethrotomy depends, of course, not alone upon an observation of technique, but also upon the manner in which it is performed. I cannot say that I am heartily in favor of that kind of operation we sometimes see mentioned in the newspapers, of which it is said, "the operation was successful but the patient died." I

am perfectly willing to allow the other fellow to enjoy the glory of all operations of that kind. In a series of something over 400 urethrotomies of different kinds I have not had the misfortune to lose a single case by death. This gratifying result I attribute quite as much to good luck and a favorable series of cases as to skill. Nevertheless, some experience and skill are essential in order to obtain a good result from urethrotomy. Scarcely any two urethrotomy operations are alike, and the operator must determine from his examination the character of the operation to perform. My favorite instrument is the Otis urethrotome, although other makes can be used quite as well. The instrument should be inserted gently and carefully with the concave surface looking towards the dorsum of the penis, as all strictures posterior to the navicular fossa are cut on the roof of the urethra rather than on the floor. There is always danger of making a false passage if the cut is upon the floor of the urethra and this should be guarded against. When the constricted point is reached the instrument is dilated as far as possible without exerting undue force and the cut made from behind forward. The cut should be deep enough to sever every constricted fibre, because one of the chief sources of failure is in superficial cutting. If there are several strictures, the one nearest the bladder should be cut first if possible, and all should be treated at one sitting. After each stricture is cut I carefully dilate a little further, so as to break down any fibres that may have escaped the blade of the knife.

Immediately after the operation, or as soon as the flow of blood lessens somewhat, I insert as large a steel sound as can be passed. The bleeding is not usually troublesome, although a stray blood vessel or one that has been forced out of its normal position may be severed. If the bleeding is too severe a sterilized bougie or sound may be inserted and retained in the urethra until the bleeding ceases. If necessary a T-bandage may be applied. Some surgeons insert an antiseptic catheter for twenty-four hours after an operation and follow by a flushing of 1 to 4000 bichloride solution. I do not especially favor this method owing to difficulty in keeping the catheter and urethra aseptic. I frequently draw the urine the first three or four times immediately after an operation with a sterilized catheter, which lessens pain and perhaps liability to rigors. At other times, I direct the patient to retain the urine from four to six hours if possible, and then allow it to pass without straining. Sometimes a clot of blood will clog the urethra, thus stopping the flow of urine,

and if so the urine may be drained with a catheter. This practically completes a simple or uncomplicated urethrotomy, and after it is completed I put the patient to bed for at least twenty-four hours and restrict his diet for several days, in order to favor rapid healing.

Double Incision—I wish to call attention to the fact that in some strictures of small calibre, or of a tortuous nature, a single incision is not sufficient to effect a cure. In those cases I am in the habit of making a double incision. These incisions are not made perpendicularly to the roof of the urethra, as in a single incision, but at an angle of about fifteen degrees on either side of the median line. With a double incision the degree of contraction will be much less and a normal calibre of the urethra is obtainable. As the life and development of a stricture depend upon its nourishment and blood supply, it is necessary to cut off the blood supply in order to obtain a cure. A single incision will not always destroy the blood supply in strictures of small calibre, whereas the double incision seldom fails. I have been making the double incision in strictures of this class for about five years with the most gratifying results. No large blood-vessels are likely to be severed by the double incision, but if they are, hemorrhage can be controlled as heretofore stated. In the double incision it is often necessary to cut from before backwards rather than from behind forwards. This can generally be done with the Otis urethrotome, especially if the backward incision is made second instead of first.

Medical Treatment—The treatment of stricture with medical remedies is not as satisfactory as we might wish it to be, so that too much must not be promised. Of course, internal remedies alone will not cure stricture, but in the earlier stages, or before deep cicatrization has resulted, cures may be effected with combined local and internal remedies of proper character. Much more dependence is to be placed upon local than constitutional treatment. The constitutional treatment should be administered with a view of keeping the kidneys and bladder in good condition as well as maintaining a neutral or unirritating state of the urine. Any remedy that will reduce inflammation and favor absorption of the cicatrix will have a tendency to cure stricture. Perhaps the agents best suited for this purpose are some of the salts of silver. Protargol in 1 per cent solution, or argyrol in from 1 to 20 per cent solution, injected night and mornig, will produce the most beneficial results.

By-Effects of Urethrotomy

Chills—One of the most annoying by-effects of urethrotomy is the traumatic chill, which may come on with the first urination or perhaps not for forty-eight or seventy-two hours after the operation. The chill is usually followed with a high fever which makes the patient very sick and uncomfortable for a day or two. I tried numerous remedies with a view of preventing these chills but with practically negative results until I began the use of gelsemium and acetate of potash, as named in the above prescription. While these remedies are not infallible, yet when used a few days before the operation the chills will be at least greatly modified and in most cases entirely prevented. Oil of gaultheria, in from two to five drop doses four or five times a day, is also an excellent remedy for preventing rigors.

Urethral fever is perhaps the most serious by-effect of all forms of urinary surgery, and is due to the absorption of bacteria or their poisonous products. Most physicians have noticed the sudden and pronounced fall of blood pressure which at times follows the most gentle insertion of the bougie or sound. Sometimes the effects are so pronounced as to result in collapse or syncope caused by reflex influence upon the circulation. When the kidneys are affected, instrumental treatment of the urethra should be very guarded, as the shock may be so great as not only to develop urethral fever but to induce anuria. This fact emphasizes the importance of thorough urethral antisepsis and careful urinary analysis before instrumentation and even catheterization is attempted. Albarran reports a case of internal urethrotomy in which the bacterium coli commune was found in the blood of the patient twelve hours after the operation. This shows how rapidly the poison may be absorbed, and, under favorable conditions, may prove fatal. The most effective treatment for preventing urethral fever is to be found in strict antiseptic measures. When urethral fever develops, however, antiseptic remedies, internally and locally, in the form of irrigation to the urethra and bladder, will check and control the progress of the fever in a few days. The liability of urethral fever following external urethrotomy is perhaps not so great as in internal urethrotomy, but even with this point in favor of external urethrotomy I never perform it except in absolutely impermeable strictures or emergency cases. The probability of irregular healing, annoying cicatrices or false passages is so great in the external operation that it should be given secondary consideration whenever possible.

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PHYSICALLY PERFECT

From time to time there appears in the public press an article which expresses the author's original idea that not all men are physically perfect. These articles are remarkably alike in that each author seems to be surprised by his discovery. To the writer this seems passing strange, for perfection, physical or otherwise, in the absolute sense, obviously is unattainable. Hoping and striving for physical perfection may be a worthy effort, but the accomplishment can be but relative. The only human forms ever seen by us which approach perfection were composed of marble and probably represented idealized forms more than a living form. And at most they gave only the contour of the body. Color, movement, and texture were all absent; and that complicated inside machinery was entirely ignored. What they really do represent is undoubtedly beautiful and inspiring; but it is such a small part of the whole. Now, seeing that it is necessary to idealize in order to produce a human body perfect only as to contour, how is it possible to produce such a body perfect in all of its parts? The human body, like other animals, abounds in imperfections. Some of these are congenital, many are the result of disease. Whatever the cause it is the vocation of the

medical man to rectify them in so far as it is possible to do so. Without exception each individual can be elevated at least one step nearer physical perfection. All that is necessary is carry to the examination a clear image of the idealized human form and carefully and minutely compare with it the actual form of the person examined. Knowledge thus applied will reveal anatomical and physical imperfections otherwise hidden and suggest methods or remedies for their improvement.

THE TREATMENT OF WHITLOW BY THE STRICTLY NECESSARY INCISION

Paul Gallois, M.D.

It is not without some trepidation that I venture to discuss the treatment of whitlow in a journal of such wide circulation as the *Monde Medical*. Seeing that I do not specialize in surgery, it may savour of presumption on my part to deal with a problem outside my province. My presumption may appear the greater seeing that the principle of treatment which I seek to formulate is in opposition to generally received ideas. But I have been in practice some thirty-odd years and during this long period of time I have been called upon to treat a goodly number of whitlows. All my patients without exception have recovered without losing a phalanx and without ankylosis of the finger, accidents which I have witnessed often enough in the hands of others, even of surgeons of repute who might be expected to know how best to deal with such cases. I think, therefore, that I am justified in giving publicity to my procedure. I do so, be it remarked, only after a fairly long experience and with some hesitation. I fully understand that in so doing I incur a certain responsibility and I would not like to bear the burden of reproach of losses of fingers by those who followed my advice. I consequently beg my readers only to employ this method when they have convinced themselves of its advantages and are willing to assume entire responsibility for the results. I beg them, moreover, to revert to the classical procedures should they think that in a given case it would be exposing their patients to too grave risks to apply a method which they believe to be founded on error. In every operative procedure indeed, apart from the question of technique, there is always the "tour de main" which accounts for the fact that such and such a procedure, which proves successful in the hands of one practitioner, may fail in others. I

shall therefore explain what I am in the habit of doing, without venturing to give an opinion. I leave everyone free to imitate me or continue to apply the classical methods of treatment.

When I was a student the surgeons whose teaching I followed recommended their pupils to make free, deep incisions in all cases of whitlow. They chaffed us unmercifully when we made very small incisions, which they called medical incisions, and themselves took the scalpel in hand to enlarge our too timid openings. As to the depth to which we were advised to reach, it may be summed up in the formula, "down to the bone," which still echoes in my ears. Whether since the year 1880, where this souvenir takes me, surgeons' views in this matter have undergone a change I cannot say; in any event, a few months ago, at the Paris Society of Medicine, when I explained my own views on the subject, the surgeons present professed great anxiety as to the risks my patients might be running in consequence of my *stricte necessaire* incision, and announced their intention of persisting in the practice of making free, deep incisions.

It was on myself that, in 1884, for the first time I had recourse to the strictly necessary incision. I was at that time interne with Straus, and was making a goodly number of autopsies. I had a whitlow of the right middle finger and I was looking forward with considerable apprehension to the time when I should have to request a colleague to do the necessary. With the prospect of a free deep incision before my eyes, my courage failed me. I preferred to operate upon myself with my left hand, and you may believe me when I say that my incision was as small as it well could be. Well, I recovered without a hitch, and nowadays you would really have to look very close to discover even where it was.

Since then I have sought to apply in my practice the rather pusillanimous procedure which I applied to myself and which had succeeded in my own case. What I aim at is to make as small an incision as possible but big enough, all the same, not to allow of accumulation of pus. This is what I call the strictly necessary incision. Each day on applying the dressing I make sure by pressure round about the wound that no matter is accumulating in the depths. As a matter of fact, it is highly important that the doctor should daily ascertain by inspection that his incision is sufficient. He must bear in mind that he runs certain risks and that he must be prepared to extend the original incision should it prove inadequate. It would be allowing the patient to run certain avoidable risks only to see him every three or four days and a "*fortiori*" only once a week.

Very rarely does it happen that an incision one centimetre in length does not prove sufficient; indeed, I generally make even smaller incisions than this. In case of shirt-button abscesses it is recommended not to be satisfied with opening up the superficial ampulla, but to open up the subcutaneous focus as well. In principle I adopt this recommendation, but in practice if, after having removed with scissors all the detached epidermis, I find that the deep abscess can empty itself sufficiently through the orifice of communication, then I do not enlarge the orifice. If evacuation appears to me to be inadequate I merely pass the blade of a narrow scalpel through the orifice and this, as a rule, answers the purpose.

As to depth, I only try to cut through the ceiling of the abscess and not to incise the floor. I carefully avoid going down to the bone, as used to be recommended by old-time authorities. I am inclined to think that it was by making too deep incisions that the pus found admission to planes into which it would not otherwise have penetrated. We must be afraid, in my opinion, of opening up the sheaths and the periosteum, thus infecting the tendinous synovials and the bone.

From this point of view our views have undergone a radical change in reference to the evolution of an abscess. Formerly it was thought to start in the depths of the tissues with a tendency to open outside, consequently the object was to reach the abscess right away, however far away it might be. At the present time, thanks to microbial theories, we know that, apart from osteomyelitis and tuberculosis of bone, the origin of an abscess is always superficial. Micro-organisms have entered through some slight, trifling solution of continuity in the epidermis. If they are unable to get out they set up suppuration, and if there be retention the pus tends to burrow more deeply. We have only to bring retention to an end for recovery to take place, so to speak, naturally. The opening need not be big to put an end to retention. Too free and too deep incisions passing beyond the limits of the abscess only convey infection to regions previously free therefrom.

In short, owing to interventions as discrete as possible I cure my patients in the course of a few days, not only without stiffness and mutilation but in most instances without even a visible cicatrix. Then too, a fact which is not without its importance, I do not cause my patients any unnecessary pain. I remember that formerly, when my chiefs had to open an abscess it took four of us to hold the patient down and he uttered yell upon yell when being operated. Personally I always operate without any assistance, without anaesthesia,

knowing perfectly well that my patient will not upset people in the next room by his cries. Often indeed I give no pain at all, as for instance when I merely open the superficial blister and remove the detached epithelium. If I have to dig my lancet into the subcutaneous focus I warn him that it will hurt a bit but as my incision is very rapid and of limited extent the pain is quite bearable.

For this method of the strictly necessary incision to succeed it must obviously be applied early enough, we must not wait till the pus has inflicted intensive damage. But the reason why so many patients postpone applying for treatment is that they fear the operation which has the reputation of being horribly painful. If they know that they can be relieved forthwith, almost without pain, they will assuredly display less hesitation in consulting a doctor.

I may be told that my timorous method is acceptable for mild cases but would be dangerous in grave cases. That may be so but I only speak of what I have seen and do not think that chance sent me solely patients unworthy of a more energetic treatment. Had I written this article after, say two or three years' experience, I might imagine that I had been favored with a fortunate series. But after 35 years' experience I think I may eliminate this hypothesis. At any rate I cannot be accused of having made too hasty a communication or one insufficiently mature.

This article was finished and I was on the point of dispatching it to the printer when something happened that induced me to defer the dispatch. I was called upon to incise an enormous anthrax of the neck and while dressing this patient I said to myself that I stood a good chance of getting infected and developing a whitlow. Such a whitlow might be serious and it would really be too foolish for me to have to submit to a big incision just when I was urging a minute incision. My apprehensions were justified in part for I had a whitlow on the same right index finger as 35 years before but on the ulnar side of the nail while the previous one was on the radial side. I never had any other whitlows and it was curious that I should have had one just when writing on the subject. I will give the notes of my case which will enable me to describe my exact procedure for it is possible that my method of dressing may have something to do with the results.

It was on June 24 that I began to feel pain in the finger. I immediately applied a moist dressing, that is to say, I took some cotton wool dipped in a solution of corrosive sublimate

and applied it, without squeezing out, to the tip of the finger. I covered it with a sheet of piece of gutta percha tissue and fixed it with a bandage. I renewed the dressing at midday and at night when I felt that the dressing was getting dry. By maintaining a compress steeped in a solution of corrosive sublimate I have often been able to absorb a threatening whitlow. This time, however, no abortion took place. On the 28th at 6 p. m., on reapplying the dressing I noticed a small white spot at the edge of the nail, two or three millimetres across. I opened this with the point of a lancet and as is my practice I sought to remove with fine blunt pointed scissors the whole of the detached epidermis. But there was so little, the incision was so short and I was so clumsy with my left hand that I was not successful. I let matters slide thinking that after all on the next or the following days the epidermis would become detached and would give a better grip, but this was not the case. Suspecting a shirt-button abscess I squeezed the finger and this gave exit to a comparatively large quantity of thick pus. I reapplied the same dressing. On the morrow, squeezing it morning and evening, I got out more pus, first serous and then scarcely mattery at all. On the 28th nothing came out. That day there was a meeting of the Society of Medicine of Paris and I promised myself that I would show my finger to my colleagues but circumstances prevented my doing so. A little later there was some infection of the bed of the nail. I treated this by applying balsam of Peru with a match then a little cotton wool dipped in the perchloride solution, wrung out and dipped in glycerine. Glycerine in these cases strikes me as being an excellent dressing. It runs freely into the out of the way corners in a way that water does not do. Then too, it dehydrates the tissues thus arresting superficial suppuration. Balsam of Peru seems to act in much the same way. At the end of the month I was well again and it is today, July 5, that I am writing this article. In short, my whitlow was cured in a week without my having to cease work and except for a little desquamation of the inflamed part and barely visible swelling no trace remains. I can therefore only congratulate myself on not having incised more freely and more deeply, and on having adhered to my plan of a strictly necessary incision.—*Le Monde Medical*.

ACUTE ANTERIOR POLIOMYELITIS—THE ETIOLOGY AND BEST TREATMENT TO PREVENT DEFORMITY

Henry J. Schireson, M.D., Newark, N. J.

The etiology of acute anterior poliomyelitis has been given much attention recently, and the consensus of opinion confirms the theory that it is a lesion of the motor cells of the anterior horns of the spinal cord through the arterial blood supply of the anterior and two posterior spinal arteries.

Bacteriological examinations made by such men as Schultz, Dercum and many other scientists confirm the opinion of the disease being epidemic, infectious, contagious and traumatic, and that toxins of the alimentary canal are one of the most sourceful means of infection, which is proved by the fact that more cases of infantile paralysis occur in the month of September than any other four months of the year during the disease or after the child begins to convalesce from an attack of summer complaint.

That the disease is at times epidemic is unquestioned and established by ample evidence, and that a common source of infection from the milk supply is not lacking in evidence and deserves consideration. The conclusion of Scheele, Holt and Hartlett is that the disease is contagious, and forty instances are reported where the disease has appeared in from two to seven members of the same family. Lovett and Lucus report 635 cases of infantile paralysis in Boston in 1907, and the greater number of these occurred in the second year of life, and while the etiological evidence substantiated the infectious theory, the direct bacteriological proof did not sustain that theory conclusively; but the character of the onset, the epidemic distribution, the apparent contagiousness and experimental production of paralysis in animals all point in this direction. The fact that the disease selects children during dentition and the summer months, and especially August and September, offers evidence of gastro-intestinal disease, and suggests a possible source of infection in the intestinal tract from a milk bacillus, which liberates a toxin, the harmful agent, and then disappears. The etiological conclusion of the literature on the subject does not warrant the statement that any one cause produces the disease, but many, because various degrees and kinds of illness often precede the attack, such as malaise, headache, loss of appetite, varicella, measles, scarlet fever, cholera infantum, otorrhea, and many other diseases incident to child life. Hence, the disease may be the clinical expression of the reaction of the spinal cord to one of several causes, of which infection may well be considered one.

At present we must observe, study and collect material, remembering that we may be dealing (1) with a specific infectious disease; (2) with an infection due to one of several organisms; or (3) with a disease of more than one origin, not always necessarily infectious. The physician perceives plainly that his patient is suffering from an acute infectious process of some kind, but he is surely to be pardoned if he fails to appreciate its true nature, for until paralysis makes its appearance no pathognomonic symptoms are seen.

I have myself seen a few cases called cerebro-spinal meningitis, which proved to be monoplegia or paralysis, when the severe symptoms had disappeared; hence a thorough knowledge of the nervous system is absolutely necessary, otherwise we will be treating poliomyelitis for scorbutus, torticollis for cervical adenitis, trismus for inflamed wisdom tooth, and knee-jerk for morbus coxarius, all producing deformities from abnormal changes in the nervous system.

The treatment of infantile paralysis has received its share of special attention from the best orthopedic surgeons in this country and Europe, and yet a majority of the cripples seen on our streets are caused by anterior poliomyelitis, so that it has been truthfully said that "nothing is more misleading than facts, unless it is figures." Such a statement is not ill timed when we consider the inefficiency of our former treatment and the number of cripples seen daily. The plan of treatment I have recently used in acute infantile paralysis cases has been with the influence of environment and lapse of time. As soon as the disease is recognized I put the patient in a recumbent position until spontaneous recession takes place, which will often take several months and sometimes more than a year, and right here is where the difficulty arises in keeping a child well and quiet, and yet it can be done to a certain extent, and we have the consolation of knowing we have selected the lesser of the two problems under consideration. The deformities seen are more frequent in the lower extremities than in the upper, which is not strange when we pause to think that the arms are free, while the legs bear the weight of the body, so when the joints of the lower extremities are affected, or even suspected, they should be protected by recumbency or proper mechanical appliances or braces; hence the rational conclusion is physical simplicity in cause and effect.

Disability from this disease is seen almost ten times as often in the lower as in the upper extremities, and yet in the early stage the paralysis is found in all parts of the motor system, and in the recumbent position we find it absolutely favorable to spontaneous recession of the paralysis. The arms and hands retain this advantage when the patient is erect, but

the impaired muscles of the legs and feet give way at once when they meet the weight of the body, and become attenuated and elongated, and could not be put in a position more damaging to them, and the result is plainly seen in all kinds of clubfoot, short tendo Achilles, anterior muscles of the thigh and frail joints. Therefore, if in acute anterior poliomyelitis, we can by means of a recumbent position give to all the muscles alike the same opportunity for spontaneous recession of the disease in them, we will not see ten times as many deformities in the lower extremities as we do in the upper, and the number of deformities from this disease will be materially reduced.

Another treatment in this disease, when it has taken on the chronic form and the deformity is well marked, which has proved very satisfactory in my practice, is repeated plaster casts at short intervals, while the patient is under an anesthetic and muscles and tendons easily stretched; the deformity can gradually, with this treatment, be overcome, and the limbs made stronger and more useful than they would be in overcoming the deformity by myotomy or tenotomy, although there are some cases that require both methods. However, these methods should not supplant their valuable adjuncts of passive motion, exercise, electricity, massage, local applications and judicious medication, all of which will make it easier to carry out the recumbent position with better ultimate results.—(National Quarterly.)

NEWS ITEMS

Born: To Dr. and Mrs. Kenneth Baber, Los Angeles, a daughter, on December 19, 1919.

Died: A. A. Guglieri, M.D., Madrona, California; graduate of the California Eclectic Medical College, 1901, on November 30, 1919, aged 60 years.

Dr. Jacob S. Rinehart has moved from Lexington, Mo., to No. 200½ West Commercial Street, Springfield, Mo., having bought the practice of Dr. C. A. Tucker.

Dr. L. S. Asbury of Rising Sun, Nebr., has bought the practice of Dr. J. S. Rinehart and moved to Lexington, Mo.

Dr. J. E. Shearer has moved from Cloverdale, Oregon, to Tillamook, Oregon, where he is associated with Dr. A. C. Crank.

Dr. Walter H. Fearn, Lakeport, California, has been re-appointed County Physician for another term. The new Lake County Hospital, a reinforced concrete structure on a thirteen-acre plot, will be opened in the very near future. The hospital will admit private patients as well as charity and as the building and equipment are modern in every respect, Dr. Fearn will be able to do his work to the best advantage.

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:: Original Contributions ::

THE MUNK BOTANICAL GARDEN AND ARBORETUM

J. A. Munk, M.D., Los Angeles, California

In 1906 I started a botanical garden for growing domestic medicinal herbs, in order to find out how plants from other states would act when transferred to California soil and climate. Some native medicinal plants, like *Anemopsis* and *Rhamnus Californica*, were already established on the ground when the garden was begun, and these were allowed to remain to help give variety to the collection. Later on the experiment was extended to include many eastern forest trees and shrubs.

The place chosen for making the trial was an eight-acre lot near the village of Compton, in an agricultural district half-way between Los Angeles and Long Beach. The ground selected is on an alluvial plain, seventy-six feet above tide-water. The soil is a rich, sandy loam, filled with fine bits of mica and some alkali in spots. Not a grain or coarse sand or gravel, nor a piece of any kind of rock, unless imported, is found over an area of many miles.

The locality has the benefit of the daily cool sea breeze from the Pacific ocean during the summer months, and an occasional touch of frost in the winter. The frost seldom amounts to more than ten degrees, for a short time during the early morning hours, and rarely does any damage. The land lies midway between the frostless sea-shore and the foothill thermal belt. Apples are supposed to be benefited by a little frost, and they grow here to perfection, but citrus fruits thrive best where there is no frost.

At the time that the garden was begun, a professional friend from Topeka, Kansas, paid me a visit. After showing him over the place and explaining the project, he immediately

began to figure out my prospect of life, according to actuary rules, and decided that I was undertaking the enterprise too late in life to make it a success. However, I did not let his talk discourage me from going ahead, saying that even if the time were short the work gave me great pleasure in the joy of watching things grow; and although it might not benefit me, it would do somebody else some good after I was gone. He proved to be a poor prophet, as I have lived long enough to realize my expectations, while he departed this life many years ago.

As the trees now growing in Southern California are mostly evergreen, and imported from hot countries, I decided to make the test with deciduous trees from the temperate zone. When I began to inquire, I found that deciduous shade trees were scarce and could not be obtained in quantity in the local market. I succeeded in finding a few native poplars, sycamores and willows and with these I made a start.

I then sent east and procured an assortment of forest trees and shrubs from nurserymen and friends; also some new foreign varieties from the Bureau of Plant Industry. In planting the trees, I aimed to avoid any stereotyped method of arrangement, but distributed them at irregular intervals, to give the grove the appearance of a natural forest. I wanted to see how the trees would be affected by a change in local conditions and gave them only such attention as was necessary to give them a good start. They readily became established and grew rapidly, so that now after a lapse of twelve years some of the trees have attained a diameter of two feet and a height of one hundred feet, all covered by a thick canopy of dense foliage.

A winding brook meanders through the grove, with here and there a footpath leading to some favorite spot. The spaces of level bottom land, sloping banks, open swales and sequestered glades, covered with trees and shrubbery, give it the appearance of an eastern woodland. Many kinds of birds and some small four-footed wild creatures have been attracted to its shelter and have made it their sanctuary. The little animals are seldom seen as they usually travel at night, but the track of their nocturnal rambles are visible in the dust on the road and in the soft earth of the damp ditches.

An important ingredient of the soil to keep it in good condition is an adequate supply of water. In a country like California, where it does not rain during eight months of the year, water is an important factor and must be applied to the land artificially by irrigation, to make the soil productive.

This essential element is furnished by an artesian well which flows in a perennial stream without pumping. The water is conducted over the ground in ditches, by gravity flow, and is used whenever and wherever it is needed. When the water is not being used for irrigation, it is discharged by a spillway over rippling cascades as it falls from the higher level of the well to the lower level of the brook, where their waters commingle and flow onward to the sea.

One advantage of a dry country is that weeds do not grow and spread as in a wet country. No plant that is brought from the humid east, where it is accustomed to being drenched by rain every few days, can stand a prolonged drouth without dying. Naturally, some weeds must grow in every land, but those imported to the desert must first become desert bred in order to acquire the habit of drouth resistance. Otherwise they must be nursed with water and cultivated to be able to endure. However, plants sometimes change their habits and will adapt themselves to drouth so that they can live without much water. A familiar example of such a change in California is the common hoarhound (*Marrubium vulgare*) which is an adopted child but flourishes as if it were a native of the soil.

Of all the forest trees experimented with, the Carolina poplar (*Populus Carolinensis*) is the favorite. It grows rapidly and is clean, tall and stately. Its foliage is glossy and sparkles in the sunlight! its leaves are scarcely ever still and have a musical rustle. It is handsome looking throughout the year, green in the spring and summer, yellow in the fall when its leaves show the autumn tints, and white in the winter when the bare branches are gracefully outlined against the blue sky. The treetop is the last to acquire leaves in the spring and the last to lose them in the fall. After most of the lower leaves have disappeared, the topmost branches stand up like flag-staffs, in a glorious array of shining yellow leaves, like an army with banners fluttering in the breeze. When the autumnal colors appear in the foliage the change is called oxidation, which is an effect rather than a cause and has no special significance except to indicate that the leaves have reached full maturity and passed into a state of decay. This action takes place en masse only in deciduous trees when they shed their leaves in the fall to carpet the ground in varying shades of russet and brown.

If at this time the weather happens to be hot and dry, the leaves do not show their usual bright colors but die and drop quickly. If the weather is cool, damp and cloudy, the colors

are noticeably brighter and the leaves adhere closely for some time, yet it all happens without any frost. In California the change occurs during the month of October, the same as in the east, and the appearance of such a grove in a California landscape is in striking contrast to the prevailing evergreen forests that have been introduced from Australia and other tropic lands.

Nature's arboreal pageant is a pleasing spectacle to contemplate. It begins early in the spring with the buds bursting into many kinds of leaves which spread a fresh green color over the trees like an emerald garment and marks the beginning of nature's annual carnival. The mild winter weather of the California summerland does not appear to hurry nature in the least. The trees remain dormant all winter long, until it is time for them to act, when suddenly the buds start to swell and grow and nothing can stop them. Nature's order of procedure is perfect and each variety of leaf and flower finds its particular place in the procession at precisely the right time to add its touch of color to the harmony of this wonderful panorama.

Yellow predominates in the colors of the autumn foliage, yet there are also bright splashes of red to be seen. The trees that are most conspicuous in yellow stand out in about the following order: Carolina poplar (*Populus Carolinensis*), yellow poplar (*Liriodendron tulipifera*), maple (*Acer saacharium*), ash (*Fraxinus Americana*), elm (*Ulmus fulva*), linden (*Tilia Americana*), and several kinds of nut trees; while the tallow tree (*Sapium sebiferum*), red oak (*Quercus rubra*), sweetgum (*Liquidambar styraciflua*), wahoo (*Euonymus atropurpurens*), staghorn sumach (*Rhus hirta*), poke root (*Phytolacca decandra*) are clothed in brilliant red as if growing on their native heath.

Starting a grove of deciduous forest trees seemed to be a necessary preliminary in preparing a suitable ground for the reception of eastern wildwoods plants, in order to provide them with their accustomed leaf mold and shade. Notwithstanding that this work was thoroughly done, the plants did not take kindly to the change and in most cases perished. My first order consisted of one hundred sets each of golden seal (*Hydrastis Canadensis*) and of ginseng (*Panax quinquefolium*) that had been propagated in an eastern nursery. They arrived in good condition, were carefully planted and made a good start. After several weeks had passed they were stricken with a blight that wilted them in one day, and only a few plants survived. The few that lived made a feeble effort to

grow the next year, surviving only a short time, when they, too, died.

Other woods plants were procured at different times direct from eastern collectors. They met a like fate and this was a sore disappointment. No sufficient cause could be ascribed for the failure, only that the plants did not seem to fit into their new environment. Some of these plants, as I now recall them were black cohosh (*Cimicifuga racemosa*), mayapple (*Podophyllum peltatum*), blood-root (*Sanguinaria Canadensis*), liverwort (*Hepatica triloba*), partridge berry (*Mitchella repens*), wild ginger (*Asarum Canadensis*), trailing arbutus (*Epegea repens*), wintergreen (*Gaultheria procumbens*), and yellow lady's slipper (*Cypripedium pubescens*).

About the same time a few periwinkle vines (*Vinca minor*) were planted in another section of the grove. These soon grew rank and spread rapidly by runners into a thick mat of vines that covered the ground. The plant seems to thrive in a soft bed of leaves and dense shade, which conditions appeared to be detrimental to the other plants as described above. It is an attractive midwinter cover crop, with its trailing vines, green leaves and blue flowers showing conspicuously among the gray trees and brown leaves of the forest. Of the climbing plants only three kinds lived and continued to endure. These were the wild yam (*Dioscorea villosa*), American ivy (*Ampelopsis quinquefolium*) and yellow parilla (*Menispermum Canadensis*).

The shrubs and herbaceous plants which were planted in the open garden fared better, and some of them have prospered exceedingly well. Among them are the spicebush (*Larus benzoin*), elderberry (*Sambucus Canadensis*), prickly ash (*Xanthoxylum Americanum*), bayberry (*Mirica cerifera*), black haw (*Viburnum prunifolium*), witch hazen (*Hamelis Virginica*), pawpaw (*Asimina triloba*), English hawthorn (*Crategas oxyacantha*), Oregon grape (*Berberis aquifolium*), Apache plume (*Fallugia paradoxa*), green bells (*Lycium pollidum*), desert willow (*Chilopsis linearis*), Scotch broom (*Cytisus scoparius*), Canadian hemp (*Apocynum cannabinum*), queen of the meadow (*Eupatorium purpureum*), iron weed (*Veronia Noveboracensis*), Solomon's seal (*Polygonatum bifeorum*), boneset (*Eupatorium perfoliatum*), cranesbill (*Geranium maculatum*), butterfly weed (*Asclepias tuberosa*), Indian pink (*Spigelia marilandica*), spikenard (*Aralia racemosa*), mullein (*Verbascum thapsus*), and elecampane (*Inula Helenium*).

The plants mentioned above are only a few out of many

hundreds that grow in the garden, but are sufficient to denote the wide range of plant life which the garden produces. Some families of plants are represented by several different species, all manifesting similar peculiarities. There is every kind of mint, several kinds of sumach and dogwood, a dozen or more varieties of Berberis and a like number of golden rods.

Many of the plants show unusual vigor and are increased in size. As an illustration, take the iron weed which, as found growing in an eastern meadow, has a height of from three to four feet, while here it attains a height of from eight to ten feet, with a flower-head of deep purple blossoms as large as a water bucket. Another instance is the elder which in the east has a corymb of white flowers the size of a saucer, while here they are as big as a dinner plate. In protected places the bushes are loaded with fruit in season, but where the berries are exposed they are devoured by the greedy birds even before they are half ripe.

One reason for growing medicinal plants was to ascertain if their value as medicines would be impaired by the changed conditions of environment. They evidently lose none of their strength and if there is any difference it is in favor of an increased value.

HAY FEVER AND ITS TREATMENT

Dr. E. S. McClelland, Los Angeles

Read before the Los Angeles County Eclectic Medical Society

Hay fever is very closely related to asthma. Each has comparatively the same etiology. Each may manifest itself in an individual at the same time. Their pathology differs only in the parts of the body affected. Their signs and symptoms differ only because different organs are affected.

With the exception of rheumatism there is possibly no disease which has called forth so many forms of treatment, treatments reasonable and unreasonable, scientific and unscientific, but most unfortunate of all none are specific.

The treatment of hay fever by alcoholic injection is, properly speaking, unscientific, but if we consider the nature and pathology of the disease we can scarcely consider the treatment unreasonable. This treatment certainly gives satisfactory results in selected cases and so far as the writer knows it has never produced any ill effects, yet it might be considered presumptuous to advocate such a method of treatment without first giving due consideration to what is popularly known as

the scientific means of treatment and offering reasons for not giving it preference.

Before discussion of the treatment of hay fever it may be well to briefly review the etiology. It is the consensus of opinion that hay fever has not only a predisposing but an exciting cause. A predisposing cause may be an inherited neurotic temperament or an occupation which wears on the nerves, or one which furnishes a sensitive spot, or the excessive use of a nerve stimulant, or a pathological condition of the nasal passages or a focal infection. These predisposing causes place the disease mostly among the educated, among the tradesmen and the professional, the highly sensitive, among social aspirants, among people who worry for any reason and among the delicate. It seems to be a disease of civilization. It is peculiarly rare among the lower classes. It is absent from the entire continents of Asia and Africa. Even the negro, and Jap and Chinaman of America have retained their immunity.

Focal infections are generally supposed to be the cause in most cases which occur at any season of the year. If it were possible for all focal infections to be removed a certain class of cases could possibly be eliminated, but unfortunately about 50% of all focal infections are beyond the reach of the surgeon, viz., in the lungs, and bacterial vaccines are far from specific.

An individual has inherited or acquired a predisposing cause, then there are literally hundreds of exciting causes which are capable of throwing this individual into the most violent attacks of Hay Fever or Asthma within a few minutes. The most common of these is the protein of the pollen of various forms of grasses, trees and weeds. The most common excitant of the largest early summer class is the pollen of grasses. The most common excitant of the large late summer group is the protein from the pollen of the compositae, as for example from the ragweed or golden-rod of the East. The protein of a vast number of foods act as exciting causes of this disease. The protein of many furs or feathers act with equal violence.

The writer now has a patient afflicted with both Hay Fever and Asthma whose exciting cause is the fur of a cat of any color or kind. In many cases the patient has become aware of some exciting cause. If the patient cannot furnish the physician with any information as to the exciting cause then the physician may find himself involved in a laborious task in diagnosing the exciting cause, which is necessary if he expects to use what we have honored by calling the strictly scientific or learned method of treatment.

There are two methods of approaching the diagnosis of the exciting cause. One comparatively simple called that of elimination, as for example a subject susceptible to a spring variety of pollen is seldom susceptible to a fall variety of pollen and vice versa, or a patient who is subject to Hay Fever at any time during the year is seldom susceptible to pollen of any kind.

The other method of diagnosis is that devised, I think, by Walker of Boston. This test is not so complicated, but hundreds of individual tests may be required in order to determine all the exciting causes. The technique of this test is similar to that of Von Pirquet test for tuberculosis except that a protein extract of some pollen, fur or feather is used instead of the tuberculin. Only one protein can be used at a time. A well equipped laboratory should contain about two hundred pollen protein alone. The same protein which is found to produce the required skin reaction is used as a vaccine for treatment. To apply this method here in California is out of the question as far as the protein of pollens are concerned. It is not advisable to use extracts or vaccines manufactured from eastern or middle western flora and as no pharmaceutical company on the Pacific Coast has yet been induced to attempt the manufacture of a necessary series of pollen extracts from either our native or our large variety of imported semi-tropical plants this method of diagnosis and treatment must be dismissed as impossible here. Even the extract from the giant eastern ragweed differs sufficiently from the protein of our dwarf ragweed to be of no use to the physician here in applying this method. People susceptible to the ragweed in the east as a rule escape the effect of the pollen of our dwarf ragweed here for the first few years after coming to this climate.

Diagnosis and treatment by food, fur, and feather protein is possible here as the material is accessible, but the process is expensive, tedious, requires months or years, is controverted by the danger of anaphylaxis or shock and is not specific. Often the long process of diagnosis by sensitization whereby the active exciting proteins are to be discovered, the process of immunization by ascending injections of a single extract during months without evident results is apt to discourage an individual, however enduring his patience and profound his faith in the one giving him such treatment. The basic principles of this method of treatment as laid down by Walker of Boston teach by a vast series of experiments that the use of a protein used for treatment which does not show itself an excitant in the diagnostic test must be expected to do actual

harm by sensitizing the patient to a new exciting cause if used for treatment. If this is true then we could not expect mixed stock proteins advertised by pharmaceutical houses to be of any use, but rather a source of danger even if made from our native pollen. If the diagnosis and treatment of Hay Fever by protein vaccines is not only impracticable but impossible here on the Pacific Coast on account of the absence of material, then the most profound disciples of science should not criticize us for trying some other method more simple, more practical and more effective. Of course it is difficult to estimate the value of any treatment for Hay Fever, since many recover automatically at about the age of forty years. The administration of chloroform will often give an asthmatic or hay fever patient relief for months. A surgical operation of almost any kind on the nose or abdomen, or anywhere, often gives temporary relief in a way similar to the relief experienced by epileptics after an operation or snake bite. The most persistent case the author ever knew recovered in spite of all treatment at the age of sixty. Since patients rarely if ever die from hay fever or even asthma unless complicated, these disturbances must be considered more of a functional nervous disorder than an organic trouble. Although closely related Asthma may yield to general medicinal treatment while Hay Fever is rarely if ever benefitted much by such treatment, and as a rule is accentuated by any form of local treatment such as commonly used in the treatment of catarrh. The most diagnostic things about Hay Fever are the hypersensitive areas in the nose which are with few exceptions located at the anterior and posterior ends of the inferior turbinates and the adjacent areas on the septum. These areas seem to represent what we might call areas of focal irritation, from which all other nervous disturbances seem to radiate. A histological examination shows the sensory nerve endings in these areas protruding through the mucous membrane associated with more or less erosion of the columnar cells. Any medicinal or chemical irritation of these exposed nerve endings is usually quickly followed by a hypostatic congestion of the submucous cavernous tissue, the entire mucous membrane becomes swollen as if nature was making an effort to withdraw and cover the exposed nerve filaments. All the surrounding sensory system is sympathetically affected and stimulated; the lachrymal glands and all adjacent mucous glands become exceedingly active. The olfactory nerves are excited, although it has no termination in these hypersensitive areas. The olfactory nerve is distributed to the upper half of the septum, the superior turbinates

and the upper half of the middle turbinate. Almost any mechanical or chemical irritation of these hypersensitive areas will bring on the ordinary symptoms and signs of Hay Fever and also Asthma if the patient is affected with the associated trouble. We can understand therefore why there are no local applications which can give even temporary relief except those which temporarily anaesthetize these sensitive areas, such as a solution of cocaine, which acts directly on the nerve endings, or an adrenalin solution which no doubt gives temporary anaesthesia to these nerve endings by a contraction of the mucous membrane sufficient to produce some pressure anaesthesia. Cocaine no doubt produces some of its anaesthesia by pressure effects, then contraction of the mucous membrane.

Alcoholic injections act by apparently giving a more or less permanent anaesthetic effect to these sensitive areas. The more sensitive these areas the more surely will the alcoholic injections cause a subsidence of the symptoms. Such injections no doubt produce a degeneration of the exposed sensory nerve terminations similar to that produced by injections of neuralgic nerves, with alcohol, but no deterioration of the sense of smell. From 5 to 10 mm. of an 8 % carbolyzed alcohol should be injected into the submucous vascular tissue of the areas in question, and nowhere else. The operation is painful for a few minutes, but of no particular consequence unless the injecting needle enters the perichondrium when the absorption of the alcohol is slow, the pain prolonged and have poor results obtained, as the alcohol does not come into contact with the nerve fibers in sufficient amount or strength to produce the desired effect. It is best not to inject these areas with any local anaesthetic before the alcoholic injections are made, because the tissues are dilated with water and the effect of the alcohol is diminished. The writer uses an ordinary hypodermic syringe and needle for injecting the anterior areas with addition of a tonsil extension and a curved dental needle for the posterior areas going up back of the palate through the pharynx. Almost any combination of accentuated symptoms may follow during the following 48 hours after the treatment. The patient needs considerable encouragement for a few days, although the results are often as immediate as when a neuralgic nerve has been injected. By the end of a week the patient has experienced all the benefits which he is likely to receive. These are usually gratifying if the treatment is confined only to those cases in early adult life who possess the hypersensitive areas. Although the writer has not treated more than a dozen cases in his private practice, he has been

using the method at a clinic held on Saturday at the University of Southern California, where it has been impossible to keep in touch with cases in a way to estimate the permanency of the results. If the effect is similar to that of nerve injection for neuralgia the results may be permanent, but a relief of from six weeks to six years is worth while. This method is certainly to be recommended in selected cases because (1) It gives relief. (2) It causes no sloughing of tissues or destruction of the columnar epithelium and mucous glands such as must necessarily follow the cautery, crush or destructive methods formerly employed which invariably resulted in a destruction of the columnar epithelium and a replacement of squamous epithelium. The ordinary function of the nose is not disturbed. The sense of smell and the secreting glands remain more nearly intact than by any other local treatment. The principle is now as positively established that as little tissue should be removed from the nose for any trouble as that the tonsils and adenoids should be entirely removed. In the atrophic stage of any nasal trouble later on there is apt to be too much dryness, too much space for the passage of air and too small amount of secretion.

Conclusions. Conceding that the largest class of Hay Fever cases is caused by the protein of pollen, foods, fur or feathers acting on hypersensitive areas of the nose, the vaccine method of treatment is largely out of the question in this locality. The alcoholic method is effective on cases associated with hypersensitive areas in the nose in the early adult life. The alcoholic method reduces these hypersensitive areas and thus reduces the foci of irritation which must be present in order that the exciting agent can act. The method produces no sloughing, no destruction of the nasal tissues, no deterioration of the sense of smell. The results of this treatment warrant its use in selected cases. The permanency of the results has not yet been determined.

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O. C. WELBOURN, A.M., M.D.
Editor

D. MACLEAN, M.D.
Associate Editor

P. M. WELBOURN, A.B., M.D.
Assistant Editor

SPECIAL CONTRIBUTORS:

JOHN URI LLOYD, Phr. M., Cincinnati, Ohio.

J. W. FYFE, M. D., Saugatuck, Conn.

WM. P. BEST, M. D., Indianapolis, Ind.

FINLEY ELLINGWOOD, M. D., Chicago, Ill.

HARVEY W. FELTER, M. D., Cincinnati, Ohio.

J. B. MITCHELL, M. D., San Francisco.

A. F. STEPHENS, M. D., St. Louis, Mo.

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THE 1920 "FLU"

Again the "flu" is in our midst. To be sure, it is not quite the same "flu" that we had last year, being of a milder type. However, no one is objecting to this phase of its expression. A less percentage of cases are complicated with pneumonia and these cases are not virulent. On the other hand, the alimentary tract suffers more than last year, particularly in children. This complication is severe and protracted, though the mortality rate is not high. The indicated remedies are the same as those so successfully used last year. For the respiratory type, *Gelsemium* still heads the list, with *Eupatorium* a close second. For the alimentary type, *Glycyrrhiza* is the remedy most often indicated.

X-RAY THERAPY

By Robert Knox, M.D., Edin., M. R. C. S., L. R. C. F.

Consulting Radiologist, Great Northern Central Hospital;
Honorary Radiologist, King's College Hospital; Director,
Electrical and Radiotherapeutic Department,
Cancer Hospital (Free) London

The proper appreciation of the value of radiations in practical therapeutics is, to those unacquainted with the subject, very difficult. Opinions vary amongst surgical and medical experts to an astonishing degree. Such opinions are sometimes expressed on scant knowledge of the matter especially of the technique and the action of radiations upon the tissues, and oftener on the results obtained in the treatment of quite unsuitable cases. Perhaps a still more confusing factor is presented by the conflicting opinions of experienced radiologists who may be over-enthusiastic in their claims for the efficacy of the agents they employ, and who may not have had a very extensive clinical knowledge of the diseases they are called upon to treat. Lastly, the new agents were quite early in their history called upon to cure diseases which had completely baffled all other known methods. Little wonder that the results should have been scanty, and that so many conflicting opinions on value have been formed and expressed.

In this paper I shall endeavor to give a summary of X-ray therapeutics and describe the technique for a number of diseases which benefit from radiation treatment. It will be impossible to discuss the instrumentation or the physics of the subject. The former is best learned by a few visits to an X-ray department. The latter calls for an extensive practical knowledge of physics.

The X-Rays and the Structure of Matter

The far-reaching effects of the discovery of X-rays and the subsequent isolation of radium were at the outset hardly recognized. Kayne, in his introduction to his admirable book on X-rays, says:

"In the early nineties it was not infrequently maintained that the science of physics had put its house in complete order, and that any future advances could only be along the lines of precision measurement. Such pessimism has been utterly confounded by a sequence of discoveries since 1895 unparalleled in their fundamental nature and promise. Even many not specially concerned have had their attention directed to the recent attempts at solving the riddle which has excited interest and taxed ingenuity since the beginning of civilization—the problem of the ultimate structure of matter.

"The chemist and physicist have long built upon a theory of atoms and molecules, though information as to the existence and behavior of individual atoms was based only on speculation, however justifiable.

"But within the last decade we have not only isolated the atom but we have learned a great deal about its internal structure. Radio-activity has, for example, introduced us to an electrical charged atom of helium (the a-ray) with characteristics such that it can, in spite of its extreme smallness, make individual appeal to our senses.

"The speed of the a-rays is so abnormally high that if, for instance, they are allowed to strike a fluorescent screen, as in the spinthariscopes of Sir William Crookes, each atom possesses enough energy to record its arrival by a single flash of light. Rutherford and Geiger have actually recorded the arrival of atoms by means of a delicate electrometer. C. T. R. Wilson has succeeded in rendering visible and photographing the paths, not only of single charged atoms but of electrons and X-rays as well.

"These are interesting phenomena, and the closer study of their production and characteristics led to the further discovery of electrons by J. J. Thomson and of the X-rays by Roentgen.

"Through the efforts of a band of workers the Roentgen rays have thrown a searchlight on many phases of atomic physics not susceptible to other methods of attack. Quite recently X-rays have come to the aid of the crystallographer and displayed in the hands of Lane, Friederich and Knipping, Bragg, and others, the regular grouping of the atoms in a crystal.

"The Geissler discharge tube known as the Pluoker Hit-torf or Crookes tube—the former beautiful plaything of the scientist—has proved the pioneer of some of the most wonderful discoveries and speculations that physical science of this or any generation has known."

That is, in brief, a summary of the events leading up to, and including, the discovery of X-rays. These have, as can readily be seen, revolutionized our conception of the atom.

Achievements and Possibilities of Radiations in Medicine

The great advances in physics rendered possible by the accidental discovery of X-rays by Roentgen have their analogue in the field of practical and experimental medicine. The immediate adoption of X-rays all over the world by medical men working with physicists soon led to an appreciation of the value of the new agent.

No one at the outset could have foretold the immense

strides the new agent would make in the short space of two decades. The use of X-rays in diagnosis has been increased, and many important advances have been made as experience accumulated and apparatus was improved.

Far more interesting has been the gradual unfolding of the possibilities of radiations in therapeutics. The developments up to the present have been enormous. Still greater discoveries may lie before us, especially when, as a result of more extensive and intensive research, better understanding of the method of action of radiations in their application to the treatment of disease is arrived at.

It is necessary to indicate the ever-increasing field of activity before we attempt to deal with the technique and description of cases suitable for treatment. X-rays when skillfully used can influence practically all the tissues which go to make up the living organism, the degree of action depending solely upon the quantity of radiation used and the response to it of the tissue affected. Here we have the possibility of acting upon one or all of the tissues by an agent of great power. Obviously the action must be a general one, whose activities are at present only vaguely understood. So far we know that definite results follow upon definite doses of radiations, and if this fact is grasped we go a long way towards a comprehension of the governing principle of radiation therapeutics.

Medicine, however, is not an exact science, and rules or laws which have a definite value in physics are not so readily applied to the practice of medicine. So far the applications of radiations in medicine are more or less empirical.

As already stated, the striking discoveries in physics have gone a long way toward explaining problems which have perplexed the human mind since the dawn of early civilization. Possibly when our knowledge extends, and a thorough grasp of the physics of these agents and the underlying principles which govern their action has been obtained, it will lead to the development of a thorough technique and to a great improvement in the results obtained by their application to morbid conditions.

The developments may even be as revolutionary in medicine as they have been in physics. It may be even that the discovery of an underlying principle in cell metabolism may give us (by the aid of physics) the clue to the causation of certain diseases which have been the torment of many generations of medical men. Certainly the future teaching in the medical sciences must take more notice of physics. Medical education may be revolutionized in this way, and many of the

now recognized and apparently well established laws in medicine may, in the light of further research, require to be reviewed and possibly seriously modified.

Effects of Radiation on the Living Cell

A great deal of valuable work has already been done in regard to the behavior of the living cell when exposed to radiations. Coldwell and Russ have given us a valuable work in "X-rays, Radium, and the Living Cell," which clearly sets forth the greater effect which can be produced by radiations on cellular structures.

A thorough appreciation of the action of radiations upon the normal tissues will be valuable when we come to deal with morbid conditions. What we know now is very limited, and the result of the application of measured doses. Dealing with the subject broadly, it may be stated that if a particular cell or a group of cells be exposed to a beam of radiations from any source, and in this example we will assume that the radiations emanate from an X-ray tube, certain events may follow: (a) The cell may be stimulated; (b) its activities may be inhibited; (c) the cell may be destroyed.

The determining factor in the production of any of these ends so far as the radiations are concerned is the intensity of the radiation and the duration of the exposure. The former is governed by certain physical data which it is unnecessary to enumerate now.

In regard to the cell, the determining factor will be the resistance the cell possesses to external stimuli. Cells vary enormously in this respect, and, further, individual cells of the same type vary in a direct ratio to the stage of activity they are in when treated by the radiations. This is, in fact, the most difficult of the problems one encounters when estimating dosage.

It can readily be seen from a consideration of these facts how many and varied may be the results from a single exposure to radiations. It also indicates that treatment by radiations must of necessity be solely in the hands of experts whose training will enable them to obtain the maximum of good, and, what is of equal importance, the minimum of harm, in the treatment of diseased conditions.

It is clearly demonstrated that changes can be induced in cellular structures, and these might be described as the direct effects. There are, however, **indirect effects** produced which may have a far-reaching influence upon the metabolism of the organism. The human frame is a complex machine with many systems in full activity, each acting in sympathy or co-ordination with the others. Consequently when a par-

ticular group of cells which go to make up the area treated is acted upon by a measured dose of radiations various effects of an indirect nature are induced. If the dose is excessive, cell activity is arrested and the cellular structures die. The destroyed cells are absorbed or rendered inert by the activity of the surrounding tissues. When absorption takes place the products of disintegration are carried by the lymphatics to other organs in the body. Far-reaching effects may follow. The term "reaction" is applied to this phenomenon. The reaction may be severe and a rise of temperature lasting for several days may occur. This is obviously due to a powerful action upon the tissues. Products of disintegration of tissues may be circulated in the blood and serum and produce beneficial or harmful effects. If the former, the tissues are toned up and the patient improves. If the latter, the patient may be reduced to an extreme degree. This is specially liable to occur in the treatment of diseases of the blood, such as leukaemia, where, if care is not exercised, a rapid fall of the white cells may lead to a fatal leucopenia.

There are many interesting phenomena induced by radiations which could be discussed at great length, but time forbids.

In dealing with a subject of such scope and interest it is somewhat difficult in a single lecture to give an adequate description of all the points of interest, and much of value must be left to another occasion. What, I imagine, will be of the greatest value, will be a brief consideration of the practical application of radiations to the treatment of diseases, with short descriptions of technique and a summary of the value of the radiations in their application to particular diseases. These are numerous, since, as has been shown, X-rays may influence practically all the tissues which go to make up the complex mechanism of the human frame.

The Treatment of Diseases of the Skin

The diseases of the skin are particularly responsive to regulated doses of X-rays. The proof of this lies in the fact that many skin specialists include in their armamentarium an X-ray outfit, and, judging from the results produced by its use, it is not the least valuable of the agents employed. The treatment of skin diseases by X-rays has led to the production of the radio dermatologist, because it is evident that in this branch of medicine there is ample room for another specialist. I shall, therefore, not labor the point.

Suffice it to state that in the treatment of ringworm of the scalp X-rays are very valuable. The technique has to be very

thorough to produce accurate results. The method is not free from danger. Untoward results are not unknown. These are dermatitis and permanent alopecia. In view of the possibility of such results it is well to caution the parents of children undergoing X-ray treatment that there is danger. The percentage of accident is small but it does occur, and we must admit the possibility of such regrettable consequences.

Dr. Adamson is responsible for the introduction into this country of a method of exposure which in skilled hands yields satisfactory results. It consists briefly of the division of the scalp into five areas, each of which gets a measured dose.

A number of other diseases of the skin are amenable to skillfully applied doses of X-rays.

Rodent ulcer very frequently calls for X-ray treatment and the results are, on the whole, an improvement on those obtained by other methods. Operation offers in the early case a better prospect of cure. X-ray, however, quickly heals the ulcer. There is a tendency to recrudescence, and it is not at all uncommon for a case to require treatment extending over several years at intervals. On the whole, it is better to treat rodent ulcer with radium. The dosage is more accurately controlled, and the results are better and tend to be more permanent.

Malignant diseases of the skin.—The technique employed should be that for malignant disease generally, though in cases of superficial epithelioma and a number of cases of rodent ulcer unfiltered radiations may be used for the earlier doses, a gradual increase of the thickness of the filter being employed to ensure the adequate irradiation of the deeper structures.

Hyperidrosis.—This troublesome condition readily yields to radiations. It should be more widely employed than it is at present. The result can be obtained by one or two large doses at an interval of two to three weeks between the exposures, but it is sound policy to aim at a slower production of the effect. Three or four exposures of each axilla at intervals of three weeks should lead to an arrest of the excessive perspiration. The aim should always be to control rather than to suppress the secretion. The technique is simple. The patient lies on a couch with the arm extended over the head, and the axilla is thoroughly irradiated with unfiltered radiations. Subsequent doses should be given through an aluminum filter.

The Treatment of Enlarged Lymphatic Glands

The growing experience in the treatment of enlarged glands is forcing upon us the conviction that in X-rays we possess a remedy of great power. During the course of investigations, extending over many years, into the action of radi-

ations upon tissues, I have found that the behavior of the enlarged lymphatic glands, of whatever nature, is such as to indicate unmistakably that the effects may be far-reaching. X-rays and radium have been extensively employed in these investigations. Either will succeed if the proper dosage is administered. The response in a large number of cases has been very marked and almost invariable, the chief matter being the selection of the suitable radiation for each condition dealt with.

Diagnostic Value of X-Rays in Enlarged Glands

It is so certain that several types of enlarged glands will respond to radiations that we might employ the rays in a diagnostic as well as in a therapeutic sense. It has been observed that enlarged glands respond in somewhat like the following order to estimate doses of radiations:

1. Enlarged glands due to simple inflammatory conditions give a very rapid response if suppuration has not set in and the condition is becoming chronic.

2. Lymphadenomatous glands give a fairly rapid response, but not so rapid as the simple inflammatory ones.

3. Sarcomatous and lymphosarcomatous glands give a rapid response in the majority of cases treated, leading to a rapid diminution in the size, but the effect is rarely permanent, there being a tendency to recurrence, and an ultimate refusal to respond to further treatment.

4. Tuberculous glands give a slow response as a rule. When treated early enough the glands become quiescent and slowly subside, but if not completely fibrosed they tend to break out at a later period.

5. Carcinomatous glands give a very slow response. They hardly ever completely disappear, but they may be arrested in their growth. It is, then, sound practice to remove the glands surgically.

6. Enlarged glands due to a mixed infection are fairly common. For example, in a patient suffering from carcinoma in an adjoining area the glands may enlarge in groups and yet no secondary cancer be present, or the glands on the opposite side from the lesion may become enlarged. These will quickly subside under radiation treatment. All, or nearly all, may disappear, or one or more in a group of enlarged glands may persist. These may ultimately be found to have invading cancer cells in their substance. Only a few groups of cells may be found, the bulk of the enlargement being due to inflammatory reaction, and there may be a secondary infection due to other organisms. The same condition may occur in tuberculosis. A group of glands may have only one or two which

are actually invaded by the tubercle bacillus. In both of these instances, if the glands are treated by X-rays, a mixed response is obtained.

From a consideration of the above statements it is obvious that in X-rays we possess a differential diagnostic test which may be extremely useful when we are in doubt regarding the nature of the casual condition.

Therapeutic Radiation of Tuberculous Glands

The irradiation of enlarged tuberculous glands is useful for other purposes than that of the glands alone. Co-existent or chronic tuberculosis of the lungs may at the same time receive benefit from the radiations, and it is a matter for serious consideration whether all such cases should not have radiations applied as a part of the routine treatment.

A considerable amount of this class of work is being done, and it will be interesting to have later a report from sanatoriums which have adopted the method. The general tonic action of radiations should also be helpful in these cases.

The treatment in all cases of enlarged glands must be thorough. In sanatoriums where the patient is at rest and under observation, daily doses may be given, a fresh area being selected each day and the exposure repeated to the same area not oftener than once in 14 days. The aim in tuberculosis cases should be to include the thoracic contents, particularly the mediastinal gland, in the field of irradiation, so that all deep glands may receive adequate exposures. In less acute cases the treatment may be given once or twice a week. The dose at each visit will vary with the condition requiring treatment. Tuberculous glands require to be treated for a lengthy period of time extending over many months.

Enlargement of the Thyroid and Thymus Glands

There are no groups of clinical symptoms, such as occur in exophthalmic goitre or Basedow's disease, which call for more skillful treatment than those associated with disorders of the thyroid and thymus glands. The combined skill of the clinician and the radiologist is necessary to combat successfully the complex phenomena exhibited in this disease. There can be no question that a combined attack, using all the measures available, will enable us to check the symptoms and ultimately cure the disease in a number of cases. These vary in the degree of acuteness, and the treatment will require to be varied accordingly, if a successful issue is to be looked for. Sanatorium treatment combined with medicinal measures and radiations affords us the treatment **par excellence**.

The very acute case demands absolute rest in bed, quiet,

careful diet, fresh air, and practically a continuous action from radiation treatment. Small doses of the latter daily may be required over several weeks before any sign of improvement shows itself. Later, when the severity of the symptoms abates, the treatment should be gradually diminished in intensity and frequency, and when the metabolic balance is gradually restored the dosage may be reduced to three times a week, and, later, given at longer intervals.

X-Ray Treatment in Exophthalmic Goitre

Three areas of the thyroid gland should be irradiated, one on the right side, another on the left, and a central large area should include the isthmus of the gland and the upper thoracic region, the object being to include the thymus gland, which is generally enlarged in these cases. Experience has shown the value of including the thymus in the irradiated area. It is well to use filters of 2 or 3 mm. of aluminum, and in addition a secondary filter to protect the skin. The latter should always be carefully protected from over dosage, because if this should occur, even to a slight extent, it may be followed later by teleangiectasis, which is a troublesome complication.

Treatment should be continued at intervals over a long period of time in these acute cases. Patients complain of a tendency to relapse if this is not done, and it is quite possible to maintain the balance of activity of the gland by such treatment.

Fortunately the majority of cases treated do not require such systematic treatment. There are many patients who are not acutely ill, and though these would improve more rapidly under the stricter regime, circumstances may not allow of such vigorous treatment and it may be necessary to treat these patients at an out-patient clinic. Several hundreds of such cases have been treated by visits of once, twice, or three times a week. The dosage is similar to that described for the more acute cases, and the treatment requires to be carried on over many months. In the majority of cases the progress is satisfactory, there being a gradual restoration of balance of health, a diminution of the symptoms, and a slow but steady reduction in the size of the enlarged gland.

Better results in the more chronic cases have been obtained by the administration of small doses at frequent intervals than when the larger doses were given at intervals of three to four weeks. It is not necessarily cases of very large thyroid glands which respond most readily. The aim of treatment is to regulate the secretion from the gland, and a small gland may be very active. A regulating dose may check the activity, and so influence the condition.

Parenchymatous Goitre and Other Conditions

Another form of enlarged thyroid met with is the parenchymatous goitre, where the chief disturbance is due to the enlargement, with few or none of the general disturbances. These cases require careful treatment, the gland being very difficult to treat, and the reduction in size being very slight and very slowly induced.

A number of these cases appear to respond more rapidly when radium is used. Possibly the tissues are more resistant because the enlargement is due to a general increase of the structural tissues as against the glandular hyperplasia with over secretion in the cases of exophthalmic goitre the claim of surgery should always come first in treatment.

Malignant disease is another form of enlargement of the thyroid. This is very untractable to radiation treatment. Operation, if possible, offers the best chance of cure in those cases. Failing this, radium should be used. Large quantities of radium are required, and the filtration should be through 3 mm. or 4 mm. of lead or 2 mm. X-rays of a penetrating type may also be useful.

Enlargement of the thymus in children frequently requires treatment. X-rays will be found useful in these cases.

The Treatment of Diseases of the Blood and Ductless Glands

X-rays may be employed in the treatment of a number of these conditions. In dealing with the diseases of organs affected by morbid growths the skin receives a large percentage of the radiation and it has been noted that in this way the blood while circulating in the tissues receives a dose which may exercise an influence far-reaching in its action not only upon the constituents of the blood but on the tissues through which the blood circulates.

It is, therefore, a good practice to irradiate large areas of skin surface as well as the spleen and the bone marrow when dealing with diseases such as leukaemia. When it is necessary to get a rapid action the greater part of the surface of the body may be utilized for this purpose. Patients who have been treated for other diseases show upon examination a marked improvement in the blood. This is known by an increase in the percentage of haemoglobin and a raising of the color index, and if a blood count is taken it may show a marked increase in the percentage of the red blood corpuscles. Patients who have been treated by X-rays for fibroid of the uterus frequently show this marked improvement in the condition of the blood. The change is, however, due to other causes. For instance, the checking of the excessive haemorrhage induces an arrest of the secondary anaemia which accompanies it.

Patients treated for cancer also frequently show an improvement in the blood condition, evidenced by an increase in the number of red cells and a nearly normal color index. These improvements undoubtedly occur, though they may be only temporary.

Most of the diseases in which there are blood changes have been subjected to radiations in the hope that benefit might accrue. Evidence exists which proves that it is possible to exercise a considerable influence upon a number of these diseases. Leukaemia generally responds for a time at least to radiations, and there is no reason to assume that the improvement is only a variation in the course of the disease. The effects are too marked and exist for too long a period for this to be so.

Technique for Diseases of the Blood and Ductless Glands

This will vary with the effects we wish to produce. If a rapid action is required it should be the aim to induce a profound effect upon the blood cells. This can best be done by irradiating large areas of the skin surface with very lightly filtered rays. The first inch of tissues below the skin absorbs about 75 per cent of the total of these rays, and consequently if the blood-supply is up to the normal the percentage of radiation absorbed will be considerable. When deeper effects are likely to be more helpful than more penetrating radiations may be employed. A filter should be used to absorb a percentage of the softer radiation.

For the irradiation of the spleen and other deep organs filtered rays are employed, the filter in this case being used to protect the skin, which is likely to receive large doses of rays if repeated applications are required.

The Treatment of Diseases of the Pelvic Organs

Early in its history the extension of radiation treatment took in the diseases of the uterus and attention was particularly directed to the enlargement of the uterus arising from fibromyoma. The effect upon these structures was led up to by experimental work carried out in 1905 by Halberstader, who first noticed atrophic changes in the ovaries of rabbits as a sequel to irradiation by X-rays.

Similar observations were made by Bergonie, Tribondeau, and Recamier. Reifferschheid described changes occurring in the human ovary as a sequel to irradiation by X-rays and subsequently operated upon. Many other observers have recorded changes produced in the ovary as a result of prolonged X-ray treatment. The majority of the results given are presumably those produced by relatively small doses of X-rays, and no details are submitted as to the penetrative quality of the ray

or the filtration employed. Albers Schonberg, Henish Bordier, and later Gauss and Lembekte, give results obtained by the more intensive form of treatment, the latter having worked out a very extensive technique, using filtered rays of moderated penetration, and giving results showing improvement as the intensity of the dosage increased.

Later work in America and England on intensive lines has given improvement in results altogether greater than was at one time thought of. The advent of the Coolidge tube and apparatus capable of exciting it adequately have further improved the technique and put within our reach the possibility of administering fairly large doses at a considerable depth from the surface of the body. Further, the introduction of many ports of entry and the angling of the tube to focus the beam of rays upon a given part have rendered it possible to increase greatly the dose at a given spot. The ovary on either side is taken as the landmark upon which the rays should be focussed.

Mode of Action of the Radiation

The action of the rays appears to be primarily exercised on the ovary and its blood supply, suppression of function leading to atrophy of the structure and cessation of the menstrual haemorrhage. The latter is the most troublesome symptom arising from fibromyoma. The improvement in the patient's health may in fact be attributed to the cessation of the haemorrhage. The atrophy of the ovaries is, however, accompanied in a number of cases by a diminution in the size of the tumor. It is reasonable to assume that an action is exercised on the tumor itself. It is therefore, advisable when treating the ovarian areas, to include the tumor as well.

The anterior abdominal wall is mapped out into a number of areas. The tube is arranged in treating each area so that the beam of rays may be focussed upon a given spot. If each ovary gets the maximum effect from those "ports of entry" on the side in which it lies, the tumor also receives a very large proportion of the radiations passing through it. A part of these radiations being absorbed by the tumors, changes must therefore occur in its structure as a result of the dosage it receives.

Whatever the action may be and upon whichever structure the rays act most, there is no doubt whatever that in the treatment of those conditions many marked beneficial results can be obtained by carefully applied courses of radiations. It will therefore be necessary to describe in some detail the technique now employed, the type of case likely to benefit, and to analyze the results obtained.

Technique for the Treatment of Fibromyoma of the Uterus and Other Conditions of the Pelvic Organs

The technique, although chiefly employed for the treatment of fibromyoma, may be also applicable to such conditions as tumors of the other pelvic organs, and in the prophylactic treatment of cases of new growth after removal. It is also applicable in a modified form for the treatment of conditions such as endometritis, fibrosis of the uterus, and for the production of sterility in conditions requiring such treatment.

With a modern installation the Coolidge tube offers advantages over any other tube in use. By using a high-tension transformer with the tube a uniform series of exposures can be readily and rapidly carried through. The heating current is adjusted to give the desired penetration and the whole series of irradiations can be administered under precisely the same conditions. The dose should be measured by the Sabouraud and Poirépastille, or by a photographic paper, or by any method which is known to be reliable.

A filter of at least 3 mm. of aluminum is used, and it should be placed, if possible, midway between the tubes and the patient's skin. The secondary filter, consisting of chamois leather, several layers of thick paper, and loofah sponge, enclosed in a linen bag for convenience, is placed upon the skin under the tube box. The time taken to produce the tint B varies with each installation, and the current is capable of passing through the tube. An average of about five minutes to each dose can easily be obtained, using 2-3 ma. in the coil circuit. If the current is increased the time will be shortened proportionately to the amount of the increase in the intensity. A "hard" ray is necessary. Between 8 and 9 on the Baner qualimeter is a useful radiation to employ in these pelvic conditions.

The anterior abdominal wall is marked out into a predetermined number of areas, the landmarks used being the level of the umbilicus and the pubic arch. As many as 20 ports of entry can be utilized in this way. In addition, the areas may be extended into the lateral wall of the abdomen and the posterior aspect. These extra areas are useful when it is necessary to get in a very large dose quickly in acute cases. Each area receives the same dose of radiations.

The Question of Dosage

It is advisable to commence the treatment just after the cessation of the menstrual period in cases where that is possible. The whole of the areas may be treated at one seance where it is necessary to do so, but from experience it has been found that it is better to divide the dose into two or three days. This diminishes the exhausting action on the patient

arising from the continuous treatment of one or two hours or more, and lessens the after-effects upon the patient.

The aim of treatment is to produce the result gradually, so it is necessary to give three or more seances before the patient is really benefited. It is quite possible to produce a result in one or at the most two seances, but the effect on the patient is often very injurious for a time, as serious reaction may be induced when the very intensive line of treatment is adopted. As a rule, in the average case a satisfactory result may be looked for in from 3 to 6 seances, each consisting of 10 to 12 areas. It is not at all uncommon for the period after the first seance to be more excessive than those before the treatment, so it is necessary to caution the patient on this point if she is not to be discouraged and discontinue the treatment.

The improvement is gradual, beginning, as a rule, after the second series of treatment. The menstruation or haemorrhage generally ceases after the third series and may not be seen again. It is, however, advisable to administer one or two further series in order to keep up the action.

Immediate and Later Effects

There are certain conditions produced by the treatment of which the practitioner should be cognizant if he is to be in a position to advise his patients on these and other points of importance arising in the course of treatment. Of these the most important is the so-called reaction induced by the effects of the radiation. These may be divided into (a) immediate effects, (b) later effects (reaction, etc).

Of the **immediate effects** nausea is most common. This is probably due to the inhalation of highly ironized air, which is invariably found in the vicinity of high-tension electrical machinery and possibly to the generation of ozone in the vicinity of the active X-ray tube. Headache is often met with and is attributable to the same causes. Giddiness is a common symptom and may be directly traced to change of posture, most patients suffering temporarily and briefly from this when they arise from the X-ray couch. Patients frequently go to sleep while being treated. This is possibly due to the monotonous hum of the active electrical apparatus.

The remedy for most of these conditions is simple. For faintness a small dose of sal volatile will suffice. Eau de Cologne sprinkled on a towel and laid over the patient's face will serve to minimize the effects of the ozone and ionized air. An electrical fan in the near vicinity of the tube will quickly change the air and carry off some of the ionized air. In prolonged treatments a little oxygen in an inhaler will revive the patient.

The **later effects** come on several days after the treatment, and their appearance has a direct relationship to the intensity

of the dose. In large doses it comes on earlier, possibly the next day, but in the average not for two or three days. In cases where the dosage has been very heavy intense prostration may follow, with rapid pulse, raised temperature, and feelings of malaise. The temperature may rise to 103° and 104° and remain at this limit for some time, when patients may become extremely ill. The treatment consists of rest in bed and careful attention to diet. Medicinal treatment should be used as the symptoms indicate.

The patient generally recovers in time for the next series of treatment, which is due, as a rule, in about a month from the preceding one. Generally a degree of tolerance to the treatment develops and the patient shows hardly any reaction to subsequent doses, but a number of patients never acquire this tolerance and dread the repetition of the treatment on account of the distressing symptoms it produces. In these cases it is probable that the dosage has been too great for the patient's general resistance. The after-effects may in these cases be minimized by giving the treatment at longer intervals, or giving smaller doses and carrying the total amount over a longer period.

Type of Case Likely to Benefit from X-Ray Treatment

Although it may be assumed that tissue changes may be induced in practically any form of pelvic disease, and that in a number of these the action will be beneficial, yet for practical guidance it is necessary to survey carefully the field of usefulness and indicate where radiation treatment is likely to give better results than other methods such as the operative, where it is likely to help towards a cure when combined with the operative and other forms of treatment, and particularly to indicate when it is wise to hold one's hand and decide against X-ray treatment. This involves a resume of the conditions met with, particularly in the present instance with regard to fibromyoma.

While it has been admitted that up to the present the interstitial fibroid is the most suitable for radiation treatment, several writers have pointed out that practically all forms of fibroid respond favorably. The small tumor is more likely to become amenable to treatment than the very large tumor which fills the pelvis and the greater part of the abdomen. It is also worthy of note that the majority of the patients submitted to X-ray treatment have been for one reason or another unsuitable for operation. Hence the results secured in a number of cases have been obtained in patients who were too bad for operation, and therefore presumably not favorable subjects for any form of treatment from the curative point of view.

A typical instance of this is found in the case of a patient

who was rapidly sinking from profuse haemorrhage, and who in the earlier stage of her malady refused to submit to operation. Later, when she was willing to do so her condition was so grave that the surgeon refused to operate. As a last resource she was taken to an X-ray department in an ambulance. Treatment was pushed vigorously and in a short time the patient was out of danger. Later she made a complete recovery.

Sir John Phillips in a valuable paper states that he has used X-rays in nearly all forms of fibroid with beneficial results.

Any case of fibroid tumor will be benefited by radiation treatment if the symptoms are not urgent enough to call for immediate operation. The need for operation may be determined by: 1. The amount and frequency of the haemorrhage and the secondary effects upon the patient. 2. The size of the tumor and rate of growth. 3. The pressure effects upon other structures. Even in this class of cases radiotherapy may achieve results if the patient is willing to risk the effect of very intensive treatment and any other danger incident to its use.

There are other factors, such as the age of the patient, which may be taken as a guide to the practitioner in these cases. Till recently it has been said that patients under 40 years should not be treated by X-rays or radium. More recently it has been found that at any age the patient may be beneficially influenced, and that if modified results are all that are required it is possible to produce them. Instances of this kind will be met with in severe dysmenorrhoea associated with an infantile type of uterus. Such patients should be warned of the probable complete cessation of menstruation if the treatment is pushed to its limit.

There are other conditions than fibroids, such as menorrhagia from any cause and endometritis, which may be influenced by treatment.

Put briefly, the advantages the treatment possess over other forms are that it is quite painless, and, if it fails, operative measures may be employed under the same conditions as before or even under improved conditions. It is not accompanied by so much risk as the operative, and the after-effects are not so disturbing or lasting. Reaction may, however, in a number of cases be rather disturbing. The final result is brought about gradually and the patient is not so seriously affected by the climacteric symptoms induced in both methods of treatment. It is perhaps obvious that if the patient has the whole matter put clearly before her she may decide upon the radiation method in preference to the operative.

The Treatment of Malignant Disease

The treatment of malignant disease by radiations, as has been shown, is now widely recognized. The indiscriminate use of the method has in the past somewhat detracted from its value. In the earlier X-rays were tried in hopeless cases. Even now we are compelled to resort to their use in cases which we recognize as beyond the reach of any therapeutic agent so far as cure is concerned.

Palliative Treatment

This leads us to the consideration of the palliative use of X-rays in cases which are quite hopeless. Pain may be relieved, tumors are reduced in size, and the general health of the patient improves. The treatment is palliative in another sense, because it must be recognized that in bad cases of cancer, where it is known that the patient cannot be cured, the mental state of the patient has to be considered. Careful use of X-rays in these cases will give an amount of comfort to the patient which is altogether out of proportion to any physical benefit received.

It is pathetic to have to deal with these patients. The hope of benefit, even cure, from, to them, a wonderfully powerful agent, takes possession of them to the end. Patients will struggle to the X-ray room when it is obvious to all that they cannot possibly be relieved of their troubles. How far it is justifiable to encourage these patients I leave to the practitioner to decide. It is, however, noticeable that if nothing at all is done to help these victims they soon lose hope, become depressed, and quickly succumb to the malady.

In this relationship it is remarkable how much response may be obtained in extensive superficial carcinoma involving the skin and adjacent structures. I have seen extensive involvement of the skin clear up under practically continuous X-ray treatment. By this is meant daily doses to numerous areas of skin. The treatment may be carried on for several weeks in this way.

Possibility of Good Results in Very Grave Cases

Cases which are apparently hopeless respond well to the radiations, and a period of good health results. A striking instance of this kind may be quoted.

A man of about 35 had a sarcoma of the right testicle removed by operation. I saw him about two years after the operation. He was nearly in extremis, the abdomen was enormously distended, and there was serious engorgement of the superficial vessels of the anterior abdominal wall. The abdominal cavity was filled by a large mass of new growth, this being nodular and very hard. The legs were oedematous,

and, to judge from the physical condition of the patient, it seemed as if treatment would be useless. However, it was thought advisable to attempt to help the man. Large doses of X-rays were administered to several areas of the abdomen—back, front, and laterally—the idea being to get in a large dose rapidly. Improvement soon set in, the tumors diminished, and the swelling of the legs subsided slowly, this being aided by regular massage to the limbs.

In about three to four months the patient was able to walk. He attended as an out-patient for over a year, receiving treatment at intervals. It is now over a year since treatment was commenced. The patient is at work and is able to carry on, the condition being quiescent. He remained well for over 18 months, when he returned for further treatment.

The next case, although not one of malignant disease, illustrates the degree of influence which can be exercised over a very large tumor.

A patient attended the Great Northern Central Hospital over eight years ago suffering from an enormously enlarged spleen, the organ reaching down nearly to the public arch. He was anemic and appeared to be rapidly going down hill. He was admitted to the hospital and received doses of radiations three times a week for a month. At the end of that time there was no visible improvement and the question of removal of the spleen was discussed. I asked that a continuation of the treatment should be advised after a short interval. This was done, the spleen steadily reduced in size, and in about a year had returned nearly to the normal. Treatment at intervals of three or four weeks was administered. When last heard of, about a year ago, the patient was in good health and had been actively engaged in business for about eight years.

These cases are, I admit, exceptionally good from the point of view of treatment. The prognosis in both was as grave as it could be, yet both responded to treatment in a remarkable way. I quote them in support of the treatment of hopeless cases by palliative measures, because we cannot say when a patient will not respond in some measure to the radiations.

In our endeavor to obtain results in these cases we resort to combined treatment by X-rays or radium and the injection of salts of metal in a colloidal form. Theoretically the proposition is a sound one, since it is possible to obtain secondary radiation effects from this method. I am quite of an open mind in regard to the value of colloidal salts of metals. I have seen good results obtained, but, on the other hand, the results obtained by radiations alone are equally good.

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:: Original Contributions ::

FOCAL INFECTION IN ITS RELATION TO SYSTEMIC DISEASE

T. C. Young, M. D., Glendale, Cal.

Read before the Los Angeles County Eclectic Medical Society

Focal infection in its broad sense may be located in various parts of the body. The one most frequently brought to my notice has been that of the teeth. These foci of infection may be drained by the lymph and blood streams, empty directly into the alimentary tracts, or through fistulous openings into the sinuses of the head.

Focal infection may be primarily a very small and apparently harmless spot in itself, but closely adjacent to areas which are fertile ground or breeding places for various organisms, and then become a secondary infection, which by virtue of its toxic effects produces very severe symptoms.

The teeth may be drained by all three of the avenues by which toxins and bacteria are carried to remote organs, and likewise being in very close proximity to the sinuses of the head produce secondary inflammation of the same.

Cases of sinusitis are many times treated for long periods of time with no results. Radical operations performed, still the trouble remains. The patients and physicians are disappointed and become discouraged. One reason why results have not been obtained is that the study of the apices of the teeth in the alveoli by radiograph has been overlooked by physicians, specialists and dentists. This I consider a grave error. I find in my own work as a general practitioner that radiography is very necessary, and would also consider it such in the work of the specialist in eye, ear, nose and throat.

It seems to me that we have the cart before the horse in a high percentage of antrum and other sinus cases.

If the sinus becomes diseased we should look for a possible focus of infection in some other part of the body that may be producing the disorder. The teeth are to be ruled out first of all, as I have found them the most common contributing factor in such conditions. Take care of the teeth and the sinuses will clear up, turbinates will decrease in size, and nasal passages will clear up without a mutilating operation such as a submucous resection and turbinectomy.

Again, the general practitioner who has cases of kidney disturbances, heart lesions, internal secretory gland disorder, as well as many other infections, should consider the possibility of an infection in some part remote from the area affected. I find the teeth, tonsils and sinuses the most frequent sources of infection.

Dr. Charles Mayo, of Rochester, Minn., on February 7, 1916, made the statement before the Research Institute of the National Dental Association at Cleveland, Ohio, "that 90 out of every 100 probably die of some simple infection, the result of a focal infection, which focus of itself would cause them no trouble. He also referred to the fact that 90% of these primary focal lesions were above the collar bone, and again 90% of these are dental infections."

Other very serious conditions that may arise from this source are myocarditis, rheumatism, neurasthenia, various kidney affections, etc. The primary infection located in a remote part of the body produces no apparent pain, and thus may escape the notice of the average physician. Nevertheless, the toxin passing through the blood stream brings about inflammatory and degenerative changes in various organs through overwork as well as the direct action of the toxins upon the tissues. Then we wonder why our patients develop such grave maladies. It is conceded by all that the above conditions may arise from severe infections, such as acute gonorrhoea, scarlet fever, diphtheria, typhoid fever, etc. These diseases last but a short time, it is true, but overwhelm the organs with toxins while they last. Why is it not a feasible argument that a less severe infection produced by an equally dangerous and detrimental organism—such as the streptococcus viridens and Haemolyticus, staphylococcus, micrococcus catarrhalis, pneumococcus, and other equally pathogenic, isolated in a bony area or sinus with slow drainage, but a continual one, going on for years—would cause as severe affections?

I do not consider it necessary that every general practitioner should be able to treat an infection of the teeth, but I do think it is very necessary that he should be able to recognize when such a condition exists, and either locate the source of trouble or refer his patient to a specialist in that line who is capable of finding the trouble.

I consider dentistry a branch of medicine that everyone who intends to become a physician should be taught, not with the idea of following that line of work, but for general diagnostic purposes.

I always examine the teeth of patients suffering from arthritis, neuritis, rheumatism, etc. If I find crowns, bridge-work and fillings where the nerve has been removed with a history of ulceration, I always radiograph them. This, in my opinion, should be practiced as a routine in all the above mentioned cases.

Dr. Oliver T. Osborne, of Yale University School of Medicine, has made the statement that "A root canal filling should never be done until after the patient has been subjected to a careful radiographic examination of the teeth and alveolus." In studying the films one must understand the appearance of normal teeth in normal bone. Radiographs of the normal teeth show simple cancellus bone tissue with the peridental membrane showing as a dark line surrounding the root of the tooth. This dark appearance is due to the fact that the peridental membrane offers little or no resistance to the penetration of the ray. Any tooth in the above condition may be eliminated as a source of trouble. However, if we find a condition of rarification on one side of the root we would suspect an infection from the neighboring tooth. In infections of the peridental membrane we suspect a chronic inflammation, usually occurring from devitalized teeth. I have not found an apical abscess in a vital tooth. This very nearly proves to my satisfaction that the infection is from the pulp canal. You may see a condition in vital teeth with quite an area of rarification around the root of the tooth appearing as though it were a hypertrophy of the peridental membrane. Noticing this tooth very carefully, you usually find a bridge suspended from the tooth with evidence of overwork, or it may be due to the absence of articulation with the opposing tooth, showing loss of function.

I wish next to consider a few case histories which have come under my observation, and have been followed out in a routine manner:

1. Clinical history of patient considered.
2. Xray findings prior to extraction.
3. Inoculation of culture at time of extraction.
4. Germs actually grown and examined under the microscope, and results obtained.

The first case I wish to mention is that of Mrs. L., age 38. Mrs. L. gives a history of neuralgia for short periods (two or three years), occasional inflammation of the left eye and pain in the left cheek. Xray films as shown in the projectascope shows an abscessed condition of the right upper bicuspid, upper incisors, and left upper bicuspid and lower left molar. Was advised after Xray to have these extracted. She refused to do this and allowed the condition to remain. In a few days severe inflammation developed in the left antrum and frontal sinus. After repeated irrigations this was cleared up, extraction was done, patient's symptoms did not clear up; Xray followed, showing evidence of necrotic bone remaining under the right antrum, with extreme inflammation of the mucous membrane of the same. Operation followed, necrotic bone was removed and antrum drained, still patient did not recover. One month later all of the upper teeth were removed and alveoli curetted. Patient is reported to be in good condition. By this case I wish to show that it is not possible to remove all focal infection by one operation.

Case No. 2. Mr. G., age 45. History of lumbago, general neuritis two years previous, acute symptoms of musculo spiral neuritis of a very severe variety. Xray was taken, showing evidence of pyorrhoea with apical abscess. From the apices and alveoli cultures were made by Dr. A. Goff, laboratory diagnostician, and the findings were staphylococcus, streptococcus and gram positive bacillus fusiformis. Extraction followed. Patient is improving.

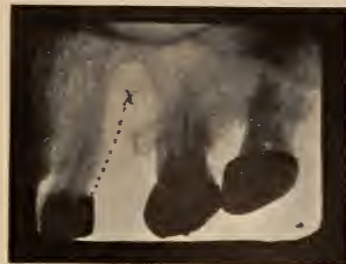
Case No. 3. Mrs. S., age 55, gives history of kidney and bladder disorder for 15 years, stomach symptoms for 10 years, sciatic neuritis 10 or 15 years, heart complications 8 or 10 years, headache, high blood pressure, lumbago. These symptoms brought her under my observation. Xray examination followed, showing peri-apical abscesses of the upper incisor, right and left bicuspid, and right and left molar, consequently the severity of the symptoms. All of the teeth were extracted and cultures were made by Dr. Goff. Findings were staphylococcus, streptococcus and micrococcus catarrhalis. Patient's symptoms after extraction and curettage of alveoli process have cleared up.

Case No. 4. Mr. L., with peri-apical abscess of upper

CASE NO. 1. MRS. L.



Periapical Abscess



After Extraction and Curettage

CASE NO. 2. MRS. G.



Pyrohoel Pockets



Traumatic Injury from Overwork

CASE NO. 3. MRS. S.



Abscess

CASE NO. 4. MRS. L.



Abscess of Upper Incisors



Filling in of Normal Bone Tissue

1871. 10th. 4.

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incisors and showing various symptoms as stated before, and not wishing to have an extraction, a root amputation was decided upon. This was an absolute success, as is shown in three radiographs following work done.

Treatment of these cases. If the clinical history is that of kidney, heart, internal secretion glands disease, dyspepsia or neurasthenia, and after Xray examination peri-apical abscesses of the teeth are found particularly those of the molar and bicuspids, I consider it necessary to extract the teeth and curette the alveolis. By this means you may remove all the infected area and clear up any focal infection. Do not understand me to say that it is possible to do this at one operation. I consider it necessary to Xray the case a few days or a week following extraction and curettage, to determine whether or not you have all of the necrotic process. If you have not succeeded in removing the necrotic tissue the first time, it may necessitate three or four efforts to do so. If at the time of extraction of molar or bicuspid you find the floor of the antrum is necrotic, I do not hesitate to open it freely and curette it out and give free drainage. This is the only avenue through which an antrum can be thoroughly drained. In peri-apical abscesses in cuspids or incisors it is possible to do a root amputation and remove necrotic area and allow a solid tooth to remain. Some results that have been obtained by root amputation I will show you in the projectascope at the close of this paper.

INDICATIONS FOR CESARIAN SECTION

Dr. O. C. Welbourn, Los Angeles

Read before the California State Eclectic Medical Society

Cesarian section is a serious operation and should not be entered into rashly. The pros and cons must be carefully and conscientiously weighed, for there are two lives at stake, as well as the physician's reputation. It is generally conceded that the life of the mother is of greater importance than that of the child; but there may be good and sufficient reasons to equalize or even reverse this rule. Therefore each case should be considered upon its merits.

The indications for cesarian section are divided into absolute and relative and are stated as follows:

Absolute Indications:

1. Impossibility of delivering the fetus even after embryotomy has been performed, caused by a disproportion between

size of birth canal and size of fetus. Such condition may be a deformed and contracted pelvis or an overgrown fetus.

2. Pathological conditions of the mother blocking the parturient canal and impossible of removal caused by uterine and ovarian tumors, stenosis of cervix or vagina, inflammatory pelvic exudates and malignant disease. In the presence of any one of the above conditions a cesarian section is a necessity and should be performed at the earliest possible hour consistent with whatever preparations it is practical to make in a given case.

Relative Indications:

1. Impossibility of delivery without grave injury to mother or fetus, caused by disproportion between the size of the birth canal and size of the fetus; or by mal-position of the fetus.

2. Pathological conditions of the soft parts of the mother, producing obstruction in the parturient canal, the removal of which is equally hazardous with cesarian section; caused by tumors, exudates and stenosis.

3. Eclampsia in the early stage of labor with membranes unruptured and patient in a critical condition.

4. Mal-positions of the placenta, such as placenta praevia centralis or a detached placenta with marked hemorrhage.

In each and all of the above named relative indications a cesarian section is preferable over any other procedure if the conditions in the particular case are favorable. And the conditions are favorable in so far as the following requirements can be successively met:

1. Asepsis is a prime necessity prior to this operation. Has the patient a prior infection of the genital tract or on the body near the field of operation? Has the patient been infected by a careless examiner, or by dirty surroundings? Have the membranes ruptured? Is the uterus already infected? In the presence of an active infection a cesarian section is contra-indicated.

2. Asepsis is a necessity not only during the operation, but also during the post-operative care. Can asepsis be maintained when attained? Are the surroundings such that it is possible to perform an aseptic major operation? And after the completion of a successful operation can infection be prevented, and the patient carried through the convalescent period?

3. The condition of the patient. Assuming that the patient is free from sepsis, what is her physical condition? Has she any chronic disease? Has she been exhausted by many hours of suffering, possibly on the verge of collapse?

4. A reasonable skill in the operator and his various assist-

ants is required. Each should have skill in his particular task and experience with each other, so that the work of all will co-ordinate. Team work, it is called.

When all of the above requirements are present, success is assured, because it is a typical case. In the presence of an infection, great judgment and skill are required of the operator to decide what operation should be performed. Generally speaking, cesarian section is not advisable. With infection absent but surroundings bad, the difficulties are many but not insurmountable. Eternal vigilance may avoid the many pitfalls. When the patient is in a poor condition much can be done to carry her through the operation, and skillful post-operative care is a necessity. In the the most favorable cases the mortality from cesarian section should be not over one per cent. But we rarely meet such cases, and not infrequently the operator fights a losing fight or gives it up before he begins.

QUININE FOR LEPERS

A letter signed by Sister Louise, a sister of charity who is doing relief work in the far-off leper colony at Tarafangana, Madagascar, has recently been received at the headquarters of the American Red Cross.

"We are in receipt today," she writes, "of the case of quinine which you had the goodness to send us. We hasten to express our deepest gratitude for your generous gift. Our hearts are filled with prayers of gratitude to the good God, who has come so providentially through the American Red Cross, giving us help in time, when the shortage of supplies was hampering our work of charity in this poor mission of Tarafangana."

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O. C. WELBOURN, A.M., M.D.
Editor

D. MACLEAN, M.D.
Associate Editor

P. M. WELBOURN, A.B., M.D.
Assistant Editor

SPECIAL CONTRIBUTORS:

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J. W. FYFE, M. D., Saugatuck, Conn.

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HARVEY W. FELTER, M. D., Cincinnati, Ohio.

J. B. MITCHELL, M. D., San Francisco.

A. F. STEPHENS, M. D., St. Louis, Mo.

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INFLUENZA IN 1919-1920

The anticipated recrudescence of pandemic influenza arrived according to schedule. At this writing and in this locality it appears to be subsiding and we can at least hope that the worst is over. The mortality rate has been much less than that of a year ago, owing probably to greater skill displayed in its treatment as well as to a less virulent type of infection. The complications also were different. Pneumonia, which was so prevalent last year, was comparatively rare this year, and empyemas were even rarer. On the other hand, disturbances of the digestive tract were much more prevalent this year than last. This complication was frequently found in children and proved to be quite intractable. Many cases suggested cholera infantum. The convalescence was slow and the treatment both tedious and difficult. The digestion and assimilation of a sufficient amount of food to sustain life was a desideratum not easily attained. It was a serious complication. However, the mortality rate was low even in this phase of the disease. With the advent of weather less favorable for its development we may confidently expect that this disease will practically disappear.

CHAULMOOGRA OIL

One of the various therapeutical remedies which have met with ups and downs of popularity and unpopularity in sequence is *chaulmoogra* oil, an oil which is purely Indian in origin and which has been known in this country from time immemorial as a cure for leprosy. The oil is not confined to the treatment of leprosy only, but skin diseases of various kinds are often treated with this oil, which is also largely used for veterinary purposes. The oil has a long history behind it, and its administration as a soluble salt made by boiling the oil with an alkali is spoken of in old books. In Europe, too, the oil has long been used with various results. The wide divergence noticed in the quality and in the efficacy of the oil unmistakably pointed to the use of a variety of oils under the name of *chaulmoogra*, and in the Indian and Colonial Addendum to the British Pharmacopœia, 1898, the oil derived only from two sources, namely, *Gynocardia Odorata* and *Taraktogenous kurzii*, was declared to be genuine. There is another source of this oil. It is from *Hydrocarpus Wightiana*, a tree which grows in South India. In Squire's Companion to the British Pharmacopœia the *hydnocarpus* oil used to be called *false chaulmoogra*. In the latest (1914) issue of the Pharmacopœia, only *Taraktogenous Kurzii* was accepted to be a source of genuine *chaulmoogra* oil, the other sources having been accordingly discarded. But unfortunately the old designation of "*Oleum Gynocardia*" was retained, and the sodium salts of *chaulmoogra* oil, which have been re-introduced by Sir Leonard Rogers and used to be called sodium gynocardate until recently. There has been a good deal of scientific work on this very interesting medicinal oil and a *resume* will be found in page 6 of the brochure published in 1917 by Mr. J. C. Ghosh, late pharmaceutical chemist of the Government Medical Stores Department. For the last four years Sir Leonard Rogers has been assiduously carrying out researches in the treatment of leprosy with *chaulmoogra* oil, and it will be remembered that in December last he declared the *hydnocarpus* oil (false *chaulmoogra*) to be of the same therapeutic value as hitherto assigned to the oil obtained from *Taraktogenous Kurzii*. This was exactly the conclusion arrived at by Mr. Ghosh in 1917, or perhaps earlier, from a chemical consideration of the varieties of *chaulmoogra* oil, and one of his suggestions was to change the designation of preparations from "*Gynocardate*" to "*chaulmoograte*." These preparations in India are specialties of Messrs. Smith, Stanistreet & Co., Calcutta, who declare that each batch is tested by Sir Leonard Rogers before issue, and who, in their advertisement for November, 1919, changed the designation to

"Hydnocarpate." The change will perhaps be adhered to in future, and will no doubt popularize the hydnocarpus oil, removing the erroneous impression that this variety is false chaulmoogra. In Mr. Ghosh's pamphlet ample proofs by references to oldest Sanskrit texts are given about the hydnocarpus oil of South India being the real chaulmoogra, and from a recent telegram of Reuter to the "Strait Times," announcing that the cure of leprosy consists of a refined chaulmoogra oil, it is confidently anticipated that Sir Leonard Rogers will continue his vigorous researches with this oil instead of sticking to his declaration in the last May issue of the "Indian Medical Gazette," that there is nothing absolutely specific against leprosy in chaulmoogra oil products. It is understood that the basis of this declaration is that Sir Leonard found very good results in leprosy from the use of sodium morrhurate prepared in the same way as sodium hydnocarpate, and his conclusion was that other unsaturated fatty acids might also be expected to yield effective preparations against the acid-fast bacilli of both leprosy and tuberculosis. He also remarks that such action is not limited to the resistant acid-fast bacilli, thus opening up a vast field of research which may in time yield great advances in bacterial diseases, which constitute such an important part of medical science. It is very striking that, proceeding from an examination of Sanskrit texts on leprosy and chaulmoogra oil, Mr. Ghosh arrive at a similar conclusion, which is recorded in 1917 as follows:

"There is another feature, namely, the use of fatty food in leprosy and other diseases, which is very characteristic of Ayurvedic treatment. Western physicians now prescribe fatty food in cases of tuberculosis, but the ancient Hindus went further. They not only prescribed butter, which is more easily digestible than any other fatty food, but laid down a number of preparations of medicated *ghee* (clarified butter), which were apparently intended to keep up the health of the patient at a high level without taxing the digestive functions, perhaps also to increase phagocytosis."—Indian Medical Record.

DEVELOPMENT OF A NURSING PROFESSION IN POLAND

Outside of the Catholic sisterhoods the profession of nursing is still practically unknown in Europe. Even the good old-fashioned home or practical nurse of the States does not exist. This seems strange, in view of the fact that the Sisters of St. Vincent de Paul were the first women in history to go

out in the battlefield to care for the wounded, and that it was from the French Sisters of Mercy that Florence Nightingale drew her first inspiration and learned her first lessons in nursing. That America and England have gone so far ahead of Continental Europe in this respect is due to the greater freedom of women in English speaking countries.

Since the war, however, since Europe has had a practical demonstration of what American and English trained nurses have done and are doing, these countries have realized the great value of a trained nursing personnel, and training schools are being opened and hundreds of volunteers instructed.

In Poland there are now over fifty Polish Nurses' Aides who are studying in various hospitals under American direction. When Lieutenant-Colonel Chesley, American Red Cross Commissioner to Poland called for thirty volunteers for a beginners' class, over a hundred and fifty applicants responded, and these beginners are now receiving preliminary training from the chief nurse. It is in this eastern field of the war, where thousands of sick and hungry refugees are making their way back home from their exile in Russia, that the need of nurses and modern nursing methods is most felt at the present time. "The suffering and deaths that have occurred in this locality have emphasized more than anything else the great shortage of nurses," says Mrs. Jokaitis, chief nurse of the Red Cross. "But Poland is wide awake, and the Polish doctors have no foolish old-fashioned ideas about women. They are all for modern ideas and progress."

Indeed, the enthusiasm of the Poles over American ideas is unbounded, and the speed with which Polish girls of the best type are being recruited for the work is extremely encouraging. "I wouldn't be surprised to see Poland become the center of woman's activity in Europe," commented Mrs. Jokaitis. "This country gives promise, in many ways, of being a 'second America' once she gets on her feet. And the women of Poland will have a big share in getting her there."

NO MORE RABIES IN POLAND

One of the curious results of the war in Poland has been the almost complete disappearance of rabies. Owing, presumably, to the large number of wolves and the many semi-wild dogs, rabies was a very common disease five years ago. The Pasteur Institute in Warsaw, which was opened by Pasteur himself, and was the second Pasteur Institute in the world, is said to have given more inoculations than any other institute. But when the

American Red Cross first visited it, to offer what help it could, they found only one doctor and only one patient. The building had been stripped by the Germans, but neither the doctor nor the patient seemed to take the lack of equipment very much to heart.

"You see," the doctor explained, with a smile, "we don't have very many mad dog cases now, because the Germans ate up all the dogs.

Dr. Placida Gardner, chief laboratory expert of the Red Cross in Warsaw, told in a recent interview of the damage done during the German occupation to the Warsaw hospitals, which were formerly well equipped.

"The German soldiers seemed to take special delight in wrecking hospitals," said Dr. Gardner. "After they had stripped the building of everything, even to the electric wiring, the water pipes, the faucets, the door-knobs, they would stand in the middle of a room and literally shoot the place up from floor to ceiling, riddling it to splinters.

"It is not generally known that in the outlying districts of Poland, on the eastern frontier, the German military did not evacuate at the signing of the armistice, as they did from Warsaw and the more western sectors. They remained in possession for nearly six months afterward. They were in Boalystock in March. We came right on their heels. And they had employed their time in wrecking and stripping the country. It is said that before they left they shipped out over a thousand carloads of loot. Much of that was valuable hospital and laboratory equipment, the loss of which resulted in innumerable deaths among Polish soldiers, who, when we came were lying by the hundred in the coagulated blood of their wounds, without bandages, without clothing, without even beds or bedding, except straw or old newspapers—when straw or newspapers could be secured."

In restoring the wrecked hospitals and caring for the sick and wounded behind the fighting line, in fighting typhus, the American Red Cross has done a tremendous work. "But the work has only begun," says Dr. Gardner. "The unusually early winter brings a cry from all over the land for help to fight disease. Between the depredations of the retreating Russians and the incoming and outgoing of the still more pitiless Germans, Poland has been left practically powerless to make the fight alone."

PARALYTIC DEMENTIA

Theodore Davis Adlerman, A.M., M.D., Brooklyn, N. Y.

In bringing this subject to your notice, gentlemen, I have no apology to offer for taking up your time, even if this malady does not interest you; as, in my estimation, progressive general paralysis, or paretic dementia, as it is sometimes called, should be known to every general practitioner, and also because this form of insanity has for every one an interest which is possessed by no other disease. There is no other cause of death among the insane which is so common, and there is no other disease which raises so much controversy as to its cause and pathology.

In all my articles written till now I have not dwelt much on the history of any disease I described, considering it of secondary importance, and if I will now mention only that Boyle and Calmeil (1826) gave the first clinical description of general paralysis, that Klippel, Mieckle, Mott and Campbell and Zacher all did good work in their respective lines in this disease, it will suffice for the present as to the history of paralytic dementia.

Now, what is paralytic dementia, and what do we understand by it?

First, let me tell you that it is a common disease of the superior and lateral convolutions of the brain, which gradually extends over the whole nervous system, producing a peculiar impairment of motor power, and accompanied by insanity. It is a disease which demands a very heavy quota from the educated classes; it is a progressive disease or degeneration, occurring most commonly in married men of middle age, living in the cities, taking both meat and alcohol and dexterting their reproductive functions.

Unlike other forms of insanity, it especially attacks men, and, strange to say, it attacks men healthy and vigorous, in the prime of life, and not the weakly neurotics.

Will it surprise you, gentlemen, when I tell you that about one-tenth of all patients committed to the insane asylums are general paralytics?

In most patients the beginning of the disease falls in the period between the thirtieth and fiftieth years, and the disease is much rarer in advanced life. The progressive character of the ailment is marked by three stages—the prodrome, the acute and the terminative.

In young people under twenty very few cases have been observed, and the few that have been reported almost always were victims of hereditary syphilis and marked alcoholism in both

parents; and here it will not be out of place to say that by far the most important casual factor of this disease is a previous syphilitic infection, and such an infection can be made out in about 75 per cent of all cases.

Many of you will perhaps say that general paralysis of the insane is not sufficiently uniform to deserve a name. And while we will admit that, in some respects, you cannot look upon general paralysis as a very definite disease, yet the largest number of the insane who suffer from general paralysis present well-marked and typical features. The only thing to remember, though, is that symptoms and courses of each case of general paralysis will vary very much, and depend on the hereditary qualities of the patient, on the proximate causes of the disease, and on conditions under which the degeneration has taken place; and also that a great part at least of the symptoms of general paralysis are purely of a physical nature. And here I would like to add that these symptoms of general paralytics who own a neurotic heredity differ in the course of their disease from those who have no such heredity, and that the disease which depends on syphilis alone differs from that which results from syphilis and trauma or syphilis and alcohol.

With all above said, we can accordingly say that general paralysis is a disease which may attack the most diverse portions of the whole central nervous system—the brain and spinal cord—at the same time or successively; that it begins most frequently in those regions of the cerebrum which have an immediate relation to the regular course of the psychical and certain psycho-motor processes, and that mental and motor symptoms form the introductory features of the disease in a great many cases.

Putting aside, for the present, the ill-marked, anomalous and pseudo-paralytic cases, we will consider the ones we most commonly meet.

Like everything else, it has a beginning and an end, with some different stages which show the different advances of the disease.

This general paralysis usually begins either as the result of local injury or local strain, and will begin in the last developed and most specialized parts of the nervous system.

The first stage may vary much in duration, and, looking back, friends of your patient will remember certain alterations in the man, not much thought of at the time, but which account for certain odd and eccentric things done by him, so that those early symptoms whose nature was at first not recognized ought to have been regarded as initial symptoms.

You will hear about this time, also, that the patient's ordinary

mental work no longer goes on as easily as before. His memory is rather uncertain, and there are well-marked forgetfulness and inattentiveness, which were previously quite impossible for him to exhibit.

The patient becomes often disorderly in his dress, and violates the ordinary rules of decency and morality; he wastes money, commits crimes, is dissolute. He is regardless of propriety, honor and honesty; will run after women, and do this in a very foolish way, not caring for consequences, person or place.

Loss and defect in power of attention is also very common here. Loss of will-power, doubt and uncertainty may simulate neurasthenia, and increased irritability, change in temper and abnormal susceptibility to the influence of stimulants of all kinds are of very frequent occurrence. Hysteria and nervousness also occur long before any danger is suspected, and intellectual degeneration is noticed equally.

In this, by the way, there is a great contrast between general paralytics and those suffering from ordinary mania. The latter are mostly acute, and will defend their acts very skillfully, while the former cannot argue, and generally deny they have done anything that you tax them with.

Another important symptom here is the abnormal irritability. The patient easily becomes agitated, or gets angry on the slightest provocation, and it is from this point that we hear from those surrounding the patient or those nearest to him, "that he is so different from what he was." Sleep, digestion and appetite are much disturbed, and it is here that the general practitioner always makes the same mistake when such a patient presents himself—he treats him for neurasthenia.

The patient becomes unfit for his business or his profession, and what he undertakes he mismanages. His loss of attention and memory is noticeable, and he forgets what he has done a day or two previously, and to me these particular symptoms always brought to my memory certain indications and symptoms of senile dementia, but which, occurring in men of thirty-five or forty years, certainly show the advance of this great disease, paralytic dementia.

Among the sensory warnings, we meet with defect in smell, sudden loss of sight of a temporary kind, loss of hearing, temporary and local anesthesia, hallucinations or illusions of one or more of the senses.

Giddiness and so-called congestions of the brain may occur, ending in vomiting and fainting fits. The patient will himself notice here his mental capacity and memory are diminished, and he becomes anxious on this account.

He notices a feeling of confusion in the head, a peculiar distinct pressure in the head, and here you will also find the patient is unable to reckon, and makes the greatest mistakes in simple examples in multiplication.

On the motor side there is a well-marked restlessness and occasionally stupor or undue torpor, with well-marked sleepiness, slight and temporary aphasia or loss of power of expression by speech or by writing, or other defects of the kind may occur with some alteration in gait; while in some there may be little to notice in the gait or muscular power. And here, on the strength of a few such cases, fault has been found with the term general paralysis as not being applicable to persons who are active on their legs and strong in arms; but this strength is only apparent, and we may at the same time see in these particular cases that the deep reflexes are abnormal, and the earliest phenomenon is an exaggeration of the knee-jerk, which exaggeration, as the disease advances, will give way to a sluggish state and by degrees to a total absence.

Here, again, we must call your attention to another important point—the condition of the pupils. You will find they are often unequal and show particular reflex immobility in a large number of cases, especially in those in which other tabetic symptoms develop. Transitory ocular paralyses are in certain cases early symptoms. The association of reflex immobility of the pupils with an increase of patellar reflex is quite frequent. The ocular changes and visual disturbances are, in my opinion, of great diagnostic value. In a great many cases I observed a conjunctival catarrh, which, aggravated with the general paresis, was characterized by bluish discolorations of the conjunctiva, absence of ciliary limitation, and quite a pronounced resistance to therapeutic measures. In some cases the pupil reacted freely to light and very feebly in others. Color perception suffers with the progression of the paralysis, the perception of violet first disappearing, then blue, and lastly red. In quite a number of cases it is restricted concentrically for white colors.

When I spoke before about the peculiarity of gait I also ought to have added that there may be a dragging of one leg even when the reflex is exaggerated, this depending on one of the convulsive seizures which occur often, or on spinal change. Besides dragging of the leg, the leg is being jerked and not moved steadily, and if the eyes are closed the patient cannot walk, turn around or stand with the heels together. I have also found in these cases quite an unusual manifestation—a voice speaking from within, not heard through the ears—and in these cases this

hallucination seems to have been closely associated with spasmodic contractions of the masticatory muscles.

Besides these local or special troubles, there is often a general indescribable change; the person is not himself, so to speak—he is tending away from himself.

A very good plan in order to recognize the beginning of the symptoms is to have the patient pronounce a few difficult words, such as "artillery," "electricity," "Mars," etc., and you will now always hear "artrallariory" instead of "artillery," "Marsaturr" instead of "Mars," and like blunders.

In the later stages of the disease the speech in many cases is almost entirely incomprehensible. Another peculiar "want of fixity," as I call it, is also shown by the non-recognition of time, and by the manner in which violent passion is suddenly changed into amiability. To the same cause may probably be traced the characteristic facility of disposition of the general paralytic, for even at this early stage there are indications of the optimism which as the case progresses, afford a remarkable psychical symptom. The morbid vanity, general exaltation, and the tendency to regard all things in the brightest possible light, are distinctly characteristics of the prodromal stage.

The acute stage of the disease is ushered in by delusions of the wildest character. The patient believes himself to be in possession of millions of money, to be a great genius. All his ideas are expanded and exalted, whether it relates to time, space or personal attributes.

The patient here shows perfect content with himself and all around him, by constant use of superlatives. Everything is all right, splendid, first-rate, fine, superb, etc. This, however, is not in all cases, and the delusion of grandeur is not always an invariable symptom. In many cases the initial melancholic, hypochondriacal conditions prevail. The patient claims he can no longer eat; that he is poisoned; that he has lost his head, arm; that he is very small, etc. In other cases, again, there are states of violent excitement, in which the patient raves loudly, cries, and tries to destroy whatever comes in his way. Finally, we see cases also (very frequent ones) where the patients in their mental relations present simply the symptoms of a mental enfeeblement, slowly increasing to complete dementia, without even showing in any notable form states of excitement or delusions, etc.

A very prominent symptom, in my estimation, is the absence of the ulnar reflex in many cases, and I think it is a symptom of quite some diagnostic value.

There seems to be considerable difference in the sexual power of general paralytics as well as in reflexes. Some lose all sexual

desire or power at a very early period. Others show great sexual excitement, and worry their wives or run after strange women; in confinement they will indulge in constant masturbation, and their conversation is erotic, with hallucinations or delusions of sexual character.

We must not forget here to mention another peculiarity of this disease—the handwriting. We can often detect this peculiarity in a letter otherwise coherent and rational. It is not mere tremor in the formation of the letters, but the writing is blotted, dirty, words left out, letters and syllables missing; a marked want of attention seems to prevail in the letter.

Paralytics may sleep but little, but sleep is not altogether absent.

They generally take food well, often voraciously, and only in few cases do they refuse it. If they conceive a delusion about its being poisoned, it does not last long, and is soon forgotten in the absence of a memory, which is a characteristic of the disease, and this is one reason why the delusions are so constantly changing.

The whole duration of the disease is in some cases only a few months, usually two to three years, and sometimes much more. The most fatal form is that in which there is a very marked emaciation and rapid loss of strength, as a result of the constant unrest and the refusal of food.

Pathologists are not yet agreed whether the essential morbid condition in general paralysis is inflammatory or degenerative; whether the changes occur first in the nerve elements, the stroma or the lymph and blood-vascular system.

It seems to me more than probable that the beginning of the disease is to be found in some alteration of the blood supply, followed by a peri-arterial lymph growth, disturbances of the lymph currents, with consequent malnutrition of the nerve structures, degenerative changes; and then, when the nerve elements begin to atrophy and disorganize, an overgrowth of the spider cells, with other fixed cell proliferation among the degenerating tissues. Then follow the serous, sanguineous apoplexies and other symptoms found.

Considering the great difficulty of an accurate microscopic examination of the brain, it is not strange that our pathology of general paralysis is somewhat defective.

The anatomical affection in general paralysis is by no means limited to the cerebral cortex. We can often make out the loss of fibers in the deeper parts; also in the white substance and the central ganglia.

The changes in the spinal cord must, of course, also be

mentioned here, and they consist in a systemic degeneration of the lateral or posterior columns.

Time and space will not permit me to go more deeply at present into the pathological question of general paralysis.

It is not always possible to distinguish between general paralysis and some other form of mental disorder. Each stage of the disorder has its difficulties.

The diagnosis of beginning general paralysis is of greatest importance, and to establish the existence of the disease we must prove the presence of both bodily and mental symptoms, which on the whole are progressive. To arrive at an undoubted decision at one interview or inspection is very often impossible, and yet it is this which we may be called upon to do.

Patients are certainly sent to asylums as general paralytics by medical men who certify them as insane on account of their extravagant delusions, after seeing these patients only once, and not having examined them carefully. Remember that when you examine non-paralytic patients, under the excitement and strain of your scrutiny they produce symptoms similar to general paralysis. Alcoholic disorders will often produce similar symptoms.

In making a diagnosis the previous history of the patient is of the greatest importance. Remember, also, that chronic alcoholism resembles the second stage of general paralysis in many ways, but, as a rule, there is more evident loss of recent memory in the alcoholic than in the general paralytic. We must, also, not forget to mention here the certain cases of multiple sclerosis and cerebral tumors, both of which show a type of disease very like general paralysis.

Convulsions of kidney disease are often mistaken for general paralysis, and in some cases of alcoholic kidney disease dementia may have been slowly coming on before the fits, and difficulty may thus arise. But if you will remember that albuminuria is rarely met with in general paralysis, the rest is easy.

I must also say here that, in my own experience, I have not found the exalted delusions which characterize general paralysis in patients suffering from alcoholism. The emotional state was one of depression rather than exaltation in all these cases.

The connection between syphilis and general paralysis deserves a few more words. Syphilis is a common cause of general paralysis, and the affinities between some cases of brain syphilis and general paralysis need no further description from me. But there is one point I do want to bring out here, and that is that in syphilitic brain disease, apart from general paralysis, we can do good by specific treatment, but in general paralysis this treatment fails.

Out of one hundred cases of general paralysis admitted to the asylum at Helsingfors, syphilis was present in seventy-seven men and four women, and was probably present in the other nineteen cases. The interval between the beginning of syphilis and the general paresis was from five to fifteen years. Obecke, Christian and Tetige found syphilis present in ninety-six out of one hundred and thirty examined.

Disseminated sclerosis is often mistaken for general paralysis, but the peculiar staccato speech, the more jerky movements and the slow progress should be borne in mind in differentiating the two diseases.

As I have already taken up quite some of your time, I will only mention here that paralysis agitans, sunstroke and epilepsy may often give rise to a great many of the symptoms of general paralysis, but then you must remember the epileptic fits pass, leaving no paralysis, while in general paralysis the parts are paralyzed or enfeebled for some hours, or even days after; that the epileptic fit leaves the patient without mental deterioration, while in general paralysis the patient is very quiet, no matter how exalted he was before the fit.

The prognosis of general paralysis is rather unfavorable. At present we know of a very few recoveries, and those even are rather doubtful and should be viewed with suspicion. I will not say that no case of general paralysis ever ends in recovery, but it seems to me to be rather rare. What we do obtain and accomplish is to get a remission or temporary recovery, so to say, and the more acute the onset the greater the prospect and longer remission the patient seems to get, and it is very seldom that you will get more than two remissions to occur in any case.

The treatment of general paralysis may be divided into general and special.

First of all, the patient must be removed from all physical and intellectual exertions, as well as from mental excitement—you must get him away from his business. His method of life and diet must be regulated, and here the consideration will come up whether the patient can be properly treated at home, or if he should be removed to some asylum. Whether treated at home or not, the patient must be separated from his nearest relatives, and complete rest and seclusion insisted upon.

As you probably know, general paralytics can be divided into two classes—those with a quiet dementia and those who are subject to paroxysms of blind, imbecile fury and violence. These latter require safe rooms with guarded windows and doors, and protected grounds to exercise.

Specific medical treatment has made but little progress as yet

in this disease. Hyoscyamine, hyoscyne, hydrobromate of cicutine (obtained from *conium maculatum*), belladonna, cannabis, rhus, paraldehyde (insomnias), and ergotin, all have their respective places, indications and uses. Anti-syphilitic treatment can be tried in some cases. Counter-irritation along the spine is of use. Tepid baths with cold sponging, and application of galvanism to the head and spinal cord, gives some results. I need not, of course, mention here the indications for chloral and the bromides, the use of which I always supersede by the administration of veratrum and physostigmine.

Our aim in this particular disease, as long as we cannot cure absolutely, is to bring around a prolonged remission. I am not in favor of soaking such cases in iodide of potassium, and to salivate them with mercury, as I have seen cases sink rapidly under these two drugs, and I never yet saw a patient cured by the anti-syphilitic treatment.

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SOCIETY CALENDAR

National Eclectic Medical Association meets in Atlanta, Ga., June 15-18, 1920. O. F. Coffin, M.D., Indianapolis, President; Dr. H. H. Helbing, St. Louis, Mo., Secretary.

Eclectic Medical Society of the State of California meets May, 26, 27, 28, 1920, in Fresno, Cal. Ira Wheeler, M.D., Fresno, Cal., President; H. T. Cox, M.D., Los Angeles, Secretary.

Los Angeles Eclectic Medical Society meets at 8 p. m. on first Tuesday of each month. P. M. Welbourn, M.D., Los Angeles, Cal., President; C. Ohnemuller, M.D., Los Angeles, Secretary.

Southern California Eclectic Medical Association meets in October, 1920. Dr. Clinton Roath, Los Angeles, President; Dr. H. C. Smith, Glendale, Secretary.

NEWS ITEMS

Born: To Dr. and Mrs. Fred Bantum, Pasadena, California, on Christmas morning, a son.

Dr. John M. Cleaver has changed his address from Bradbury Building to 317 Exchange Building, Third and Hill Streets, Los Angeles.

Died: Dr. E. R. Petskey, Phoenix, Arizona, died February 22nd following one week's illness with erysipelas. Dr. Petskey had just opened new offices, specializing in venereal diseases and tuberculosis. Mrs. Petskey wishes to sublet these offices.

Prof. John Uri Lloyd, Cincinnati, has been elected recipient of the second Remington Honor Medal. The medal will be presented at a dinner of the New York branch of the American Pharmaceutical Association to be held in New York during April. This gold medal is awarded annually to the man or woman who has done most for American Pharmacy during the preceding year or whose efforts during a number of years have culminated to a point during the preceding year where the result of these efforts would be considered as being the most important and advantageous for American pharmacy. This is a great honor to Prof. Lloyd and we extend our heartiest congratulations.

LINGERING COUGHS

About this time of the year patients make demand upon physicians for relief from chronic coughs that have persisted throughout the spring months, and are the remaining symptom of a severe bronchitis or attack of influenza of the winter.

The logical plan of treatment is to make an effort to raise the general resistance and at the same time offer to the irritated bronchial mucosa an agent that will have a soothing effect. For this double purpose Cord. Ext. Ol. Morrhuæ Comp. (Hagee) will prove of marked usefulness, owing to its power to increase bodily strength and its specific action upon bronchial tissues. The regular administration of Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is of the utmost service in these chronic coughs, and with many physicians it is a routine measure. Its reconstructive properties make it decidedly valuable in run-down states, an underlying condition in most cases of chronic bronchitis.

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:: Original Contributions ::

ECHINACEA IN DIFFUSE SEPTIC PERITONITIS

O. C. Welbourn, M.D., Los Angeles

Read before the Los Angeles County Eclectic Medical Society

The use of echinacea in septic conditions has been common practice among the medical men of the Eclectic School for more than two decades. More recently it has been adopted by medical men generally, regardless of their previous condition of servitude. Its beneficial effects in any disease with sepsis as a characteristic is so marked that many rely upon it altogether; considering any other treatment as supplementary. However, if time and facilities permit, it is interesting and sometimes profitable to determine the specific organism present in any given case. The principal difficulty in following this method of procedure in septic peritonitis is that the patient may be dead before a scientifically accurate diagnosis can be made. In any event, because of the uniformly rapid progress of the disease and consequent accelerated increase in the mortality rate, the passing hours are exceedingly precious to the patient. It is of prime importance to employ an active antiseptic agent and to do it at once. To delay is reprehensible if not actually malpractice.

It is necessary, of course, to establish free drainage without delay, removing, if feasible, the focus of infection; though bearing constantly in mind that it is possible to kill such a patient by too thorough surgery.

It is necessary to sustain the patient by careful stimulation with a carefully selected remedy or remedies.

And it is necessary, also, to see to it that no food or liquid or even medicine is put into the stomach, because such treatment can do no positive good, and may do great harm. Water in a predetermined quantity may be given per rectum. By carefully selecting the manner of its administration there is no annoyance to the patient, and the necessary amount of fluid is provided. The above three paragraphs comprise the essentials

of a proper surgical treatment of septic peritonitis. The rest is in the hands of the Lord, unless we go further and adopt a form of medication which is specifically antagonistic to the organism present. Quite naturally this has been done; in fact, is still being done. As soon as the futility of one remedy is established, another is offered by the manufacturers. Indeed, they usually overlap as regards time, and their names are many. To relate my personal experience would be both tedious and unprofitable. Suffice it to say that for a matter of fifteen years I have been using echinacea with increasing confidence. Like all other drugs which have a systemic action, it must first be absorbed into the blood, and this is usually accomplished via the stomach. But in diffuse septic peritonitis the patient is vomiting and no drug will be absorbed from the stomach with any certainty. After some experimentation I found echafolta, when well diluted with water, is readily absorbed from the rectum. To be sure, it creates an increasing irritation, but this rarely becomes acute before four or five days, and by that time the patient is either dead or convalescent. More recently Subculoyd Echinacea has been available. In my experience it is equally as potent a preparation as Echafolta, and the amount of the drug absorbed can be determined with great accuracy. The selection between these two preparations and consequent methods of administration will be determined by factors other than those of their relative potency.

The size of the dose is the same. I usually arrange my directions to the end that the patient receives four fluid drachms during the first twenty-four hours, and then gradually decrease the dosage. In urgent cases I do not hesitate to give double this amount. I have never observed any toxic effect in my practice. And, for that matter, in the practice of any one else. I believe it to be pre-eminently a safe remedy. Furthermore, I believe it to be more efficient as a systemic antiseptic than all other remedies combined, a conclusion which I have reached after considerable experience and mature deliberation.

MEDICAL JURISPRUDENCE

Henry M. Owens, Esq., San Francisco

Having laid the proper foundation, we find that it was the weakness and fears of the human family that required rules and laws to be enacted for their government, and while we might enumerate the many volumes in which such laws

are to be found, suffice it to say that we will let each sect deal with that which applies to them, and we will at once begin to deal with the law to which we shall need most in our professional career, that of MEDICAL JURISPRUDENCE, which is properly defined as that branch of the law which depends upon the science of Medicine and Surgery and their several branches in order to properly administer justice to all the parties concerned in any civil or criminal action.

Bouvier defines it thus: "That science which applies the principles and practices of medicine to the elucidation and settlement of doubtful questions which arise in courts of law."

These questions are properly embraced in five different classes:

The first includes questions arising out of the relations of sex, as impotence and sterility, hermaphroditism, rape, pregnancy, legitimacy and delivery.

The second, injuries inflicted upon the living organization, as infanticide, wounds, poisons, persons found dead.

The third, those arising out of disqualifying diseases, as the different forms of mental alienation.

The fourth, those arising out of deceptive practice as feigned diseases.

The fifth is made up of miscellaneous questions, as age, identity, presumption of survivorship, life assurance and medical evidence, which we treat in their own proper order, and to which we add:

Sixth, those questions arising out of the relation of doctor and patient, as contracts for services, malpractice, diagnosis of physician superior to that of patient, time to operate, to quarantine, what medicine to give and when to take same, as being left solely to the judgment of the physician; liability for negligence in all cases, including charity cases, and duties of physician when acting in an official capacity as coroner, health officer.

In order to thoroughly comprehend what may be expected of the medical man in courts of law, we will analyze the term "Medical Jurisprudence":

The term "medicine," it has been held, belongs to the class called "Inductive Sciences." And the word inductive or induction has been defined as "that operation of the mind by which we infer that which we know to be true in a particular case or cases, will be true in all cases which resemble the former in certain assignable respects. In other words, induction is the process by which we conclude that what is true of certain individuals of a class, is true of the whole class, or that which

is true at certain times will be true at all times in similar circumstances.

The practice of medicine includes the application and use of medicines and drugs and therapeutic agency for the purpose of curing, mitigating, or alleviating bodily diseases, while the practice of surgery is limited to manual operations usually performed by surgical instruments or appliances. And no medicine is given or surgical operation is or should be performed until after a diagnosis of the case shall have been made. To do this, the history of the similar cases, as appears from the symptoms exhibited by the patient, should be thoroughly understood by the practitioner.

In this day and age the science of medicine has radically changed from the old methods of diagnosis, and by the use of blood tests and scientific instruments the practitioner is enabled to diagnose with more certainty.

We have seen what term "medicine" means according to its scientific origin, and we find that the term "jurisprudence" is defined as "the science of the law; the practical science of giving a wise interpretation to the laws of making a just application of them to all cases as they arise." By "science" is understood that connection of truths which is founded on principles, either evident in themselves or capable of demonstration, a collection of truths of the same kind, arranged in methodical order.

In the latter sense it is the habit of judging the same manner, and by this course of judgments forming precedents.

It is the knowledge of things divine and human, the science of what is right and what is wrong.

These questions lead us into a short inquiry of what is "law" in the sense as applied to the actions "medico-legal."

There is no word in the language which, in its popular and technical application, takes a wider or more diversified signification than the word LAW. Its use in both regards is illimitable. But as used in its popular sense and in its common acceptance by those for whom laws are made, it may be admitted, includes the whole body or system of rules and of conduct, including the decisions of courts as well as legislative acts.

"A rule of civil conduct prescribed by the Supreme power in the State Commanding that which is right and prohibiting what is wrong.

In the trial of cases wherein the testimony is of such nature to leave in doubt whether a decision should be rendered for one or the other, and if such testimony goes to the extent

of showing that a person was damaged either in his person or property or in the case of a will, and the question of competency is raised, in either matter, then the physician is called in to testify as an "expert," which is called "medical evidence," and in order to give a fair, impartial and proper answer to any question it is necessary that the physician should be well informed of the history of the case by framing the question so as to cover all of the testimony which has been given to the jury or the Court, as the case may be; then from this the physician as such expert is to draw his own conclusions as to whether or not, in his opinion, the party was sane; for example, in a given case, the proper question to be put a professional witness would be as follows: "You have been present and heard all of the witnesses testify in this case (or you have read all of the testimony heretofore given in this case), and from the symptoms, conditions and indications testified to by the other witnesses, will you state whether or not, in your opinion, the party was sane?"

The answer should be: "In my opinion the party was either sane or insane," as the case might be, or the physician may say that he would rather know more of his past history and his family history, and require such testimony to be produced before he could give a positive answer, and when answered, the next question would naturally be, if insane: "What is the nature and character of the insanity, and what state did they indicate and what would you expect the conduct of the party would be under such circumstances?"

The witness must bear in mind that he is now, for the purpose of giving his answers, acting as the judge and jury of all the testimony given in the case up to this point, and he should weigh it exceedingly carefully. He should be impartial and should have coached himself up on the subject; should have gone over the matter minutely, the day before, with the attorney who will ask the questions, and all of the questions should have been framed with the assistance of the physician, for be it known that no man can be fully prepared to answer all or any questions from a medical standpoint that an attorney not familiar with the subject of medicine might ask, and the examination would have a tendency to make both the witness and the attorney look like fools. All opinions must be based on the testimony given, and not on outside matters.

To be able to do this, the doctor must be familiar with the rules of evidence and of law, and the lawyer should be familiar with the science of medicine and surgery, at least in a primary degree.

With these objects in view, it is our purpose to point out the law from the standpoint of the lawyer and what will be expected of the physician from the law's point of view, and in order to understand the subject properly, we will take up the subjects in the following order.

1. Questions arising out of relation of sex, for the reason that, if it were not for sex, man and woman would not be, and law would be a useless waste of intellect. Therefore, sex and sexual relations are the beginning of man's troubles.

2. Injuries.

3. Disqualifying diseases.

4. Deceptive practices and feigned diseases.

5. Age, identity, life insurance.

6. Medical evidence, criminal and civil law.

7. Law relating to physician and patient.

8. Coroner and his duties, and liability in his official capacity; health officer, his duties and liabilities.

9. Dentistry.

10. Pharmacy.

Sex

Sex is the physical difference between male and female in animals. In the human species the male is called man and the female woman. Some human beings whose sexual organs are somewhat imperfect have acquired the name of hermaphrodite.

The questions arising out of the relation of sex are many and varied and all are more or less closely related to the law and medicine combined, for the reason, among others, "sexual relation" is a special case of natural selection, depending on a competition between rival males in which a premium is set on those qualities which favor their possessors in securing mates. Darwin says: "It has been shown that the largest number of vigorous offspring will be reared from the pairing of the strongest and best formed males with the most vigorous and best nourished females," in animals, which is no doubt the history in all such cases of the human species, as will be noticed by the casual layman observer.

In the animal world it is the males that possess the beauty qualifications, but with the human species it is the females that are the charmers; hence a healthy female and a healthy male should produce healthy and beautiful children, and in such case the question of legitimacy is involved.

SEXUALITY is the most powerful factor in individual social existence; the strongest incentive to the exertion of strength and acquisition of property, to the foundation of a home, and the awakening of altruistic feelings, first for a

person of the opposite sex, then for the offspring, in a wider sense, for all humanity.

Though the sexual life leads to the highest virtues, even to the sacrifice of the individuality of every other quality of the person, yet in its sensual force lies also the danger that it may degenerate into powerful passions and develop the grossest vices and lay the foundation for the commitment of the greatest crimes.

It is questionable whether, in the course of the later centuries, mankind has advanced morally. It is certain, however, that the race has become more modest, and this phenomenon of civilization—the hiding of the animal propensities is, at least, a concession that vice makes to crime. In the slow and often imperceptible progress which human morality makes there are variations or fluctuations, just as in the individual sexuality there is manifest an ebb and flow.

Periods of moral decadence can only, in the life of a people, be contemporaneous with times of effeminacy, sensuality and luxury. These conditions are always conceived as occurring with increased demands upon the nervous system, which must meet these requirements. As a result of increase of nervousness there is increase of sexuality, and since this leads to excesses among the masses, it undermines the foundation of society, the morality, virtue and purity of domestic life.

When this is destroyed, then the state is inevitably encompassed in material, moral and political ruin, such, for example, as are set forth in the past history of Rome, Greece, and in France under Louis the 14th and 15th. In such times of political and moral destruction, monstrous perversions of the sexual life were frequent, which, however, may in part be referred to as being the psycho or, at least, the neuro-pathological conditions existing in the masses at the time. History is replete with facts showing that large cities are the breeding places of nervousness and sexual degeneracy. Therefore, the study of the sex and sexual life must begin at birth and follow through its different phases until the extinction of sexual feelings.

Admiration for the opposite sex at times in certain individuals expresses itself in acts of heroism and daring, but is in danger under certain circumstances of becoming criminal if moral principles are weak; it sometimes leads to suicide among the weak and homicide among the strong.

From the fact that man by nature plays the aggressive rôle in sexual life, he is in danger of overstepping the limits

which morality and law have set, therefore society, morality and law have ordained that, to prevent the indiscriminate sexual relations of the human family, only one legitimate method is countenanced among civilized nations, the marriage contract, which is a binding social obligation, and the law has very wisely thrown a cloak around this contract, forbidding persons under certain ages, color, relations and physical and mental conditions from entering into this greatest of all contracts, and it is hoped that the time will come when no man or woman shall be competent to marry until they both shall have first been carefully examined by competent physicians and pronounced free from any mental or physical disease. Then, and not until then, will the world see a healthy race endowing the earth with an ideal progeny.

There can be no absolute table fixed when sexual maturity begins or when it ceases. The durations vary, both in individuals and in races. Race, climate, heredity and social circumstances have a very decided influence upon it.

Sexual developments in the inhabitants of tropical climes take place much earlier than in colder climates, sometimes as early as the eighth year to the fifteenth year in women. The girl raised in the city will develop about one year sooner than her country-cousin.

In woman, the time of the activity of the reproductive glands is shorter than in men (in whom the sexual function may last until a great age). Ovulation ceases about thirty years after puberty in the great majority of women, but there have been cases where the time exceeded forty-five years, and it is very important for the practitioner to bear this in mind when called upon to give his opinion as to whether or not a woman could give birth to a child at such a remote period.

Abnormality of the sexual functions proves to be especially frequent in civilized races. This fact is partly explained by the frequent abuse of the sexual organs and in part by such evidences that such functional anomalies are often the indication of an abnormal constitution of the central nervous system, which is for the most part hereditary, and in some cases acquired through evil associations and the vice of alcoholic intoxicants and drugs, which affects the sexual nerve centers and thereby causes the patient to suffer many ills arising reflexly from peripheral sensory irritants, such as gonorrhoea in its different forms, paralysis from destruction of the center of the nerve tracts in diseases of the spinal cord, thereby furnishing the foundation for the seat of a more serious affection, locomotor ataxia, the most dreaded of all nervous diseases.

Thus we find men who are unable to perform the sexual relations with their virtuous wives for lack of a necessary stimulus, but it does occur when the act is attempted with other women, even prostitutes, or in the form of some unnatural sexual act, and there are other men who become functionally incapable as the result of cerebral disturbances by reason of disgust, fear of contagion, or fear of being impotent.

This is explained in many ways, as being the result of sexual abuses, masturbation, phimosis, balanitis, gonorrhoea or malformation of the sexual organs. In the latter class it is next to impossible for the expert to forecast in what manner the patient will act toward the opposite sex, therefore in nearly all cases dementia in some form, be it ever so slight, is the goal toward which the patient unconsciously travels.

The annals of legal medicine are replete with cases whose origin date back from the early training of the moral life of the defendants charged with the many crimes closely related and connected with the sexual relations, and in many cases homicide, infanticide and suicide are the results of sexual degeneration. Hence it is absolutely necessary for the expert physician to learn the history of the sexual life of the defendant charged with crime before he can with any degree of certainty testify as to how the crime was committed or the cause which led to its commission.

There have been many cases which prove the fact that lust and cruelty frequently occur together in sexual natures, and even murder committed by strangulation or with a sharp instrument. The most horrible example is the case of Andreas Bichel, which Feuerbach published in "Altenmassige Darstellung Merktudiger Verbrechen," with reference to one of his victims. At his examination he expressed himself as follows: "I opened her breast, and with a knife cut through the fleshy parts of the body; then I arranged the body as a butcher does a beef, and hacked it with an ax into pieces the size to fit a hole which I had prepared up in the mountain for burying it. I may say that, while opening the body, I was so greedy that I trembled, and could have cut out a piece and eaten it."

Another case, following in the same category, reported by Lombrose: "A certain Phillpe indulged in choking prostitutes, post-actum, and said: "I am fond of women, but it is sport for me to choke them after enjoying them." He also reports the case of a certain Grassi, who was one night seized with sexual desire for a relative. Irritated by her remonstrances, he stabbed her several times in the abdomen with a knife, and also stabbed her father and uncle, who attempted

to hold him back. He then murdered his own father and slaughtered several oxen in the stable.

It cannot be doubted from what has gone before that a great number of so-called lust murders are properly chargeable to a combination of hyperaesthesia and paraesthesia sexualis. As a result of this perverse coloring of the feelings, further acts of bestiality with the body may result, i.e., cutting it up and wallowing in the intestines. The case of Bichel points to this possibility.

A modern example is that of Menesclou, who was examined by Lasegus, Brouardel and Motet and declared to be mentally and sound and executed. In this case a four-year-old girl was missing from her parents' home on April 15, 1880. On April 16th, Menesclou, one of the occupants of the house, was arrested. The forearm of the child was found in his pocket, and the head and entrails in a half burned condition were taken from the stove. Parts of the body were found in the water closet. The genitals could not be found. Menesclou, when asked about their whereabouts, became embarrassed. The circumstances as well as an obscene poem found on his person, left no doubt that he had violated the child and then murdered her. Menesclou expressed no remorse, asserting that his deed was an accident. His intelligence appeared somewhat limited. He presented no anatomical signs of degeneracy and was somewhat deaf and scrofulous.

OPERATING ROOM IN A PRINCESS' BOUDOIR

In the sixty-bed hospital which the American Red Cross has equipped and put in operation in the former palace of Prince Mirko in Podgoritz, Montenegro, the operating room is the former princess' boudoir. The anaesthetist's seat is a carved mahogany piano stool from the Prince's music room, and the instrument case is the Prince's armoire. Two tables for dressings were made of packing boxes, scrubbed but unpainted, and the instrument stand is a rosewood wall table. Water heater and waste box are made of petrol tins, and when operations are performed at night an ordinary kerosene lamp furnishes the only light.

A few months ago there were neither doctors nor hospitals in Podgoritz. When the Red Cross came there, it found that the only liveable house was the former palace of Prince Mirko, son of the ex-King Nicholas. It had been closed for several years, still partly furnished. By applying to the Serbian government the Red Cross got permission to use it for a hospital. Iron cots without springs, left behind

by the Austrian army, were the only beds obtainable. Bed-side tables were made of ordinary packing boxes which had once contained supplies shipped from Red Cross warehouses.

Although the house had been a prince's palace, there was no plumbing. Five-gallon gasoline cans were converted into tanks which supplied the makeshift bathroom. Ten women were employed filling these tanks until a primitive sort of piping could be put in. The water is now pumped by hand from the river.

The conservatory, looking out on the rose garden, was made into a tuberculosis ward. Springless iron beds and packing boxes furnished it. In warm weather, all who are not bed patients sit out in the sunshine of the garden in steamer chairs contrived from packing box wood and sacking. "We had the palace," says Miss Lena Johnson, head nurse. "The rest we had to invent. But it works. That's all we care." The hospital will operate through the winter.

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SPOILED FOOD

The present era might rightfully be called the "era of preserved foods." We are no longer satisfied to have each article of food at the time of its maturity, notwithstanding at that time it is of the very best quality. To meet the demands of the public, the normal season of each variety must be extended, particularly to force it on the market at an earlier date than permits of its being a prime article of diet. Furthermore, still being unsatisfied, we preserve the most of our foods to the end that they may be had any day of the year. And if the demand does not equal the supply, the cold storage man does not hesitate to carry a stock of food products from year to year—a fact not generally known by the public. For instance, in the recent cases of botulinus poisoning from eating poisoned olives, it has been shown these olives had been packed for more than five years, and notwithstanding the fact that the pack had been rejected, repeated efforts had been made to dispose of this stock to an unsuspecting public. We have not heard of any effort being made by the government

authorities to punish the culpable parties, and we therefore assume that there is no statute which fits the case. It seems to the writer that, in the interest of the public, the offering for sale of any food which is more than one year old should be prohibited by law, unless the date of cold storage or packing be plainly stamped on each individual parcel. Such a procedure would give the purchaser very valuable information concerning his product and a reasonable chance to protect himself. To be sure, preserved or canned foods may spoil and become unfit for consumption inside of one year; in fact, even within a few days, if our recollections of youth are reliable evidence; but this is no argument against safeguarding our food supply in at least a measurable degree. Any food product, even hay and corn, may spoil and become unfit for food. Such foods are not normal in appearance, taste or odor, and should not be used. It does not necessarily follow that a food which has spoiled has also become a poison; in fact, it rarely has done so; but it is hazardous to consume such food. Nevertheless, all of us, from time to time, consume food which has spoiled, but as nothing happens, we grow careless. Eventually we partake of one which is poisonous as well as spoiled, and we have a case of ptomaine. Such cases have become more common in recent years, due, in our belief, to the increased use of preserved foods. However, preserved foods have come to stay, and all that we can do is to keep off the market those food products which by decomposition have become actually harmful.

FITS AND FALLACIES

Russell G. MacRobert, M.B. (Tor.)

Associate Physician, Neurological Institute, New York

In the recent mobilization of the American Army, the number of rejections solely for nervous and mental disease rose early in places to 5 per cent of the total number. Of the first 13,481 of such rejections, 12.8 per cent were for epilepsy. A simple calculation based on these figures puts the incidence of epilepsy among the young men examined at one in 150. Such incidence seems an exaggeration of the frequency of epilepsy in our population, but most similar rough indications point to a frequency sufficient to establish a more pressing claim on general medical attention.

Certainly great numbers of epileptics come to the Neurological Institute from far and near. Three hundred and eighty-

eight new patients were added to our lists last year. There is a great variety of conceptions among them regarding their ailment, many of which are quite ridiculous. These conceptions correspond in some measure to past treatment, which varies all the way from the merely futile and ineffective to the positively harmful and dangerous. Epileptics are dieted, purged, disinfected, analyzed, circumcised and sterilized; women are deprived of their pelvic apparatus; bowels are taken away, heads broken into—every conceivable sort of activity is being indulged in and advocated for the cure of epilepsy.

This does not so much impute discredit to the physician in charge, whose attitude toward these patients is practically always one of sympathy and sincere well meaning, as it does reflect the confusion of ideas on the subject with which the medical press of the day abounds. Every one writes about epilepsy, and each explains it according to his light; and as it is possible for a man to be wrong in his main argument and yet deliver fifty truths in arriving at a false conclusion, unsound reasoning and invalid argumentation accordingly spread apace. So today there is a veritable chaos of conflicting views regarding the cause and treatment of epilepsy, but it can be easily shown that a fallacy forms the basis for most of the unique current cures.

This paper is an attempt, by a brief consideration of some of the more popular misconceptions, to clear up somewhat the confusion concerning the very interesting but much abused problem of convulsions which must surround the general practitioner under whose care most epileptics are, excepting those in the big cities.

Head Surgery

Whether from a real belief in the efficacy of the procedure, or whether merely from a feeling of helplessness combined with a desire to try something, there has been in the past much ill-advised and indiscriminate surgery performed on the heads of epileptics. Such operations are performed chiefly in an effort to remove a source of irritation. This implies a likelihood of finding in epileptics some gross lesion, and a possibility of eradicating it when found. A consideration of the character and frequency of gross brain lesions found in the brains of epileptics is pertinent.

In 845 necropsies at Craig Colony on the brains of epileptics, gross lesions are reported present in 60 per cent. In the 205 necropsies at the Monson State Hospital for epileptics, the percentage is almost the same—61.5 per cent.

To indicate the character of the lesions encountered, and included in these percentages, a list of the 1919 series of necropsies at Craig Colony is shown in the accompanying tabulation. It is a fact worth remarking that forty out of every 100 epileptics show no gross deviation from the normal even when gone over in the comprehensive manner that the table indicates. However, to accept even these figures as an indication of the prevalence of gross brain lesions among the great mass of sane and unconfirmed epileptics is for several reasons a great error.

Gross Changes at Necropsy in Seventy-six Cases of Epilepsy*

Hemiatrophy	16
Cerebral softening	10
Hemorrhages (various)	10
Pachymeningitis	9
Hydrops of the subarachnoid space.....	8
General congestion	8
Cornu ammonis sclerosis	7
Dilated ventricles	7
Cloudy arachnoid	5
Calvarium thick	4
Calvarium thin	3
Tumor	4
Hydrocephalus	4
Flattening of the convolutions.....	4
Pituitary large	2
Pituitary small	3
Tuberculosis meningitis	2
Leptomeningitis	2
Arteriosclerosis	2
Cystic choroids	2
Fractured skull	2
Trephined	1
Osteoma	1

In institutions of this kind, the disorder is seen in the severest form and in the worst type of individual. For instance, 128,725 convulsions were reported to have occurred at Craig Colony among the 1700 epileptics treated there in the year ending June 30, 1917. This indicates for each patient an average of seventy-five. The records of the Monson State Hospital for Epileptics show that 90 per cent of the necropsies were on the victims of mental disorder. In fact, all but one

* From the twenty-fifth report of Craig Colony for Epileptics, 1919.

of the brains in their series of 116 reported abnormal were from patients that were feeble-minded or demented.

Of course, these institutions do not assert that these gross lesions are the cause of the disorder. As to their significance, the statement is made, in a study of this point from the Monson State Hospital, that "like the manifestations of the disease itself, the lesions are often of a spectacular character, yet it is most difficult to state whether these lesions are the cause or the effect of the convulsions, or whether they are in any way correlatable with epilepsy."

In this connection it might also be added, regarding the significance of gross lesions to the cause of epilepsy, that, in the recent review of a large series of brain tumor cases at the Neurological Institute, fifty-two out of fifty-three never exhibited generalized epileptiform convulsions at any time during the course of the disease.

However, without further discussion as to whether the lesions tabulated bear any causative significance so far as the occurrence of convulsions is concerned, let us view the list of lesions included here, merely from the standpoint of a surgeon hoping to cure epilepsy by operation on the head. It is apparent immediately why observers at Craig Colony, despite the great number of gross lesions that they have enumerated, have been impressed by the fact that it is rare to find at necropsy a lesion which might have been benefited by operation during life. Not only this, but necropsies there on patients operated on during life showed almost constantly postoperative adhesions of the meninges to bone or cortex. Surgeons who propose operating on the heads of epileptics might do well to read Munson's¹ paper on this point.

The fallacy of operating on the heads of epileptics, therefore, in an effort to find and remove some suspected focus of irritation, is demonstrated by these few points concerning gross brain lesions, which may be thus summarized: 1. It is an error to assume that gross brain lesions exist in or about the brain in the average unconfined epileptic in any percentage of cases approximating that given out by institutions for the epileptic, such as Craig Colony and the Monson State Hospital. 2. It is not proved or even intimated that the gross brain lesions enumerated in the statistics of these institutions are primary causes of the disorder. 3. The character of the gross brain lesions described precludes practically always the possibility of successful operative interference. 4. Necropsies on

¹ Munson, J. F.: End-Results of Head Surgery in Epilepsy, New York State J. M. 12:638, 1912.

patients operated on showed almost constantly postoperative adhesions. 5. The results of operation, to say the least, are unsatisfactory.

Brain Tumor

Some operations are undertaken, too, on epileptics in the belief that a series of abortive or localized attacks must surely be caused by a tumor or other gross disease of the motor cortex. Apropos of this point there are two facts concerning epilepsy which, if more generally appreciated, would save many epileptics from a useless operation on the head: 1. The incomplete or abortive seizures which occur irregularly in the intervals between the major attacks of epilepsy are the complete seizures reduced to their initial symptoms. 2. However diversified these attacks may be, they are always or nearly always similar in the same subject.

Repeated incomplete convulsions, therefore, since they always affect the same limb, appear almost compellingly suggestive of circumscribed disease of the motor cortex in the area which represents this limb. This is especially true when paralysis supervenes from temporary exhaustion of the cortical elements by frequent attacks.

A patient presenting these conditions came to the Neurological Institute October 1, 1919. The localized attacks were so frequent and severe that a motor paralysis of the right hand and forearm occurred, accompanied by a complete loss of joint sensation at the wrist and at all joints below. Although he did not have general signs of brain tumor, he had been in imminent danger of operation on account of the persuasive evidence of the paralysis. Simple sedative treatment was commenced on the day the number of attacks had mounted to fifty-four (his worst day); and it decreased the number of convulsions at once. A week later they were arrested completely. The paralyzed hand then recovered slowly but entirely, so that two weeks after the convulsions had ceased, even the dexterity of the fingers in the formerly paralyzed hand equaled that of the unaffected hand.

This phenomenon occurred in a case of ordinary epilepsy which had got rather out of hand just before coming to the institute. Ten grains of sodium bromid, three times a day, with attention to some other details, has completely controlled all attacks to this date.

Localized attacks are not infrequent in the course of ordinary epilepsy. In the absence of the well-known signs of brain tumor, a history of having had generalized epileptiform convulsions determines the case to be in all probability one of

ordinary epilepsy; for, whereas a generalized epileptiform attack may occur as an early sign of brain tumor, it has been shown recently by the study of a large series of cases at the Neurological Institute that this happens only rarely, once in every fifty-three cases.

It must be remembered that a loss of consciousness may occasionally precede, accompany or follow some one of the strictly one-sided attacks, being caused by a brain tumor in the region of the motor cortex. If the limbs on the other side of the body do not also become convulsed, mere loss of consciousness does not make the attack a general convulsion, and it is very important that it be differentiated from one because a localized attack with loss of consciousness has the same significance and localizing values as one in which consciousness is preserved.

Head Injury

There is a more or less prevalent opinion that epilepsy is one of the likely outcomes of injury to the head. Statistics prove that this has no basis in fact. In the Franco-Prussian War, as a result of 8985 non-fatal head injuries, only forty-six cases of epilepsy developed; that is, about one in 200, or perhaps a little more frequently than it occurs in the civil population.

This might be considered a suggestion that generalized convulsions will be instituted by head injury only in that individual whose unstable nervous system predisposes him to convulsions. Perhaps such a report would read more significantly if put thus: Of 8985 persons receiving non-fatal head injuries, forty-six proved to be persons possessing a more or less generalized instability, as a tendency to recurrent convulsions became manifest in them.

The Gastro-Intestinal Tract

So much emphasis has been placed on abnormalities of the gastro-intestinal tract, and the relation of the superimposed condition of chronic intestinal stasis to convulsive seizures, that as one writer humorously says, it has almost appeared necessary to assume that every constipated person is a potential epileptic. The fact remains, however, that most constipated persons are not, and the absurdity of such an idea should become manifest on its mere statement.

However, not long ago a theory, with gastro-intestinal abnormalities as its basis, was evolved to explain epilepsy. Elaborate and unique details of the mechanism of a convulsion were described in the light of this theory. The cure advocated

was a drastic surgical operation—a removal of the large bowel. As might be expected, very ungratifying results, to say the least, followed in the wake of an all too widespread trial of this treatment. The facts on which the cure was advocated were found later to be incorrect, and the whole explanation tumbled and was withdrawn by its exponent.

However, the end of it is not yet. For some reason the operation continues in sporadic popularity. This is not because anybody now believes in the existence of the particular organism described, pictured and purported to be the germ of epilepsy. It cannot be because any one still believes that bands, adhesions, etc., in the bowel cause absorption of bacteria into the blood stream. The persistence of the treatment probably has no better nor other excuse than that all too common fallacy, the belief that any accompanying physiologic irregularity in an epileptic must surely be the cause of the convulsions. And as there were published, with the series of articles advocating this operation for epileptics, numerous and impressive roentgenograms of the intestine in various states of stasis and abnormality, I think that perhaps a lingering memory of these must be exercising an unconscious influence on the therapeutics of the disorder.

Because it is a highly dangerous procedure and its results so futile, it seems worth while to give a moment's further consideration to the basic premise on which the support of such treatment must necessarily depend.

Are gastro-intestinal abnormalities present in epilepsy? In order to study this question, the Monson State Hospital for Epileptics reviewed the protocols of its 280 necropsies on epileptics. Intestinal adhesions and peritoneal bands were present in 17.8 per cent of the cases. By the same process with 775 necropsies at the Boston City Hospital, 18.3 per cent, a slightly larger percentage, was arrived at for non-epileptics! When each portion of the gastro-intestinal tract was compared separately, this relative sameness was found to apply throughout.

The treatment is a product of fallacious reasoning from erroneous premises, and it becomes obvious that convulsions are no indication for surgical exploits on the bowel. Such cures for epilepsy deserve nothing but the severest condemnation.

The Psychogenic Theory

The psychogenic theory for epilepsy came into being about five years ago, when the bubble, it seems to me, of

freudian analysis, on which it was based, was blown to its fullest.

Some diffidence in making a post-mortem statement regarding a theory might be expected from one who for a time gave it some credence. But any details concerning it seem unnecessary when it is considered that there must be few who believe that a convulsion is a direct and purposeful attempt of the mind to supplant the pain of an unpleasant reality, with what pleasure might be anticipated, from a temporary and imaginary resumption of pre-natal existence.

There may be, however, many who believe that in a more general way psychic influences, such as fright, grief and worry, are potent causes of epilepsy. Here we must differentiate between a primary direct cause and a mere inciting factor of the first attack in predisposed persons. Gowers, who wrote years ago that "as a direct excitant of the first attack intense sudden alarm takes the first place," also made it clear that he considered such excitant but the spark that lights up the fit phenomenon in a person in whom there already exists a more or less generalized cortical instability. That apart from the view intimated by this statement, mind or emotion even in a more general way as expressed by fright, grief or worry, can be ever considered a primary causative factor of epilepsy, is put in question by the overwhelming contrary evidence supplied by the late war, which proved a great laboratory for the testing of such ideas as this, for in the war all disturbing psychic influences were present in tremendous force. Epilepsy, however, did not often occur. In fact, it was actually rare at the front in the American Army from which recruiting officers had previously excluded with fair diligence all men having a history of convulsions.

When the great frequency of the war neuroses is thought of, in comparison to the relative infrequency of war-evoked epilepsy, psychic shock and strain pale into insignificance as a cause for convulsions in a normal person.

Psychotherapeutic treatment, no matter of what kind, proves by itself absolutely ineffectual as a cure for epilepsy. Any such plan of treatment, if it at the same time denies the unstable epileptic cortex the benefit that certain remedies have been proved to bestow, is wrong, and in my opinion negligent.

The Pituitary Gland

The pituitary gland possesses a strange proclivity to evoke suspicion toward itself as being the source of uncomprehended ailments. Although already much maligned, this is probably

the only reason for its first becoming accused of having to do with epilepsy. Pituitary extract as a remedy for epilepsy seems thus to have originated on a basis of pure empiricism, although a few feeble facts have been marshaled in its support.

Chief of these is that an abnormality in the sella turcica is found by the roentgen ray in an occasional epileptic. It is hardly necessary to say that misinterpretations and fallacies are responsible for many of the reports of deformed, closed and small sella turcicas.

Then it must be remembered that abnormality in size of the sella turcica by no means implies abnormality in the size of the pituitary gland or abnormality in its functioning.

Could the pituitary gland be proved enlarged or undersized in epileptics there would be more excuse for the effort to link up pituitary dysfunction with the cause of epilepsy. However, statistics show that abnormality in size of the pituitary gland occurs but rarely in an epileptic. In the last two years 203 brains of epileptics were examined at Craig Colony, and in only five could the pituitary gland be considered either larger or smaller than normal. Then, too, there are certain well marked clinical syndromes which occur in dysfunction and disease of the pituitary gland. Convulsions have never been mentioned as a part of these syndromes. In a recent review of 160 brain tumor cases at Neurological Institute there were eighteen in which the tumor definitely involved the pituitary gland. In not one of these cases did convulsive phenomena of any kind occur.

Nevertheless, pituitary extract for epilepsy has ardent advocates. Not long ago one of these advocates² presented good evidence of its comparative futility, even in epileptics considered to be showing definite indications of pituitary disorder, although unintentionally, as the paper was written in a laudatory endeavor. The study is based on 200 cases of epilepsy, all but twenty-eight of which are at once excluded as not being suitable for the treatment. Its uselessness is thereby at once exclaimed for 86 per cent of all epileptics! Pituitary gland was fed to the remainder, and as most of these had been taking bromid previously, "this was allowed to be continued." The cures at the author's own rating are four. For the series this would mean one in fifty; for the elected twenty-eight considered to have pituitary disorder, one in seven. The latter result is about half as good with bromid and pituitary extract as one would expect to obtain with small

² Tucker, B. R.: Role of Pituitary Gland in Epileps. Arch. Neurol. & Psychiat. 2:192 (Aug.) 1919.

doses of bromid alone, according to such well-known statistical tables as that published by Aldren Turner, whose patients completely cured with small doses of bromid alone were 23.5 per cent, or almost one in four.

And yet such reports as the one considered here, to the mere glance of the hurried reader, often seem impressive, and it is not unlikely that this one alone greatly increased the consumption of pituitary extract.

Alcohol

Recently it has been authoritatively stated that alcohol as an etiologic factor in the production of insanity has been overrated. There is no doubt of this being true as regards epilepsy. Of course, pathologic alcoholism in the ancestors of epileptics is common. But, like a history of insanity, it is chiefly important merely as evidence that in these ancestors a neuropathic defect existed. That is, alcoholism is a sign of something, but by no means necessarily a cause for anything. When an estimation of the proper relation of alcohol to epilepsy is involved, this difference must be appreciated.

For instance, Dejerine asserts that in France one-half of the cases of epilepsy among children are due to alcoholic parents. Now, whereas the defect in the nervous system of the parents is perhaps unquestionably responsible for the defect in the nervous system of the child, an assumption that to the alcohol imbibed by the parents is due the epilepsy in the child is far from justified. Alcohol cannot be considered to father epilepsy merely because a man addicted to alcohol fathers a child addicted to convulsions. Such is very obviously a fallacious deduction. However, it is possible that excessive alcoholism in a pregnant woman may interfere with the proper development of the nervous system of the embryo, and so in some instances epilepsy may seem quite properly attributable to alcohol. But otherwise, alcoholism as a direct primary cause of epilepsy has not been proved. There are many who consider that as such it has been misapprehended. They believe the so-called rum-fits to be indicative merely of a dormant epilepsy. Indeed, when we compare the frequency of acut alcoholism with the infrequency of rum-fits, this view does seem plausible.

A study of the relation of alcohol to convulsions was undertaken at the Monson State Hospital for Epileptics. As a result of this study, the statement was made that "in a perfectly stable and well adjusted nervous system, alcohol per se is not sufficient to produce convulsions."

It is not my intention to underestimate the importance of alcoholism in the parents as an evidence of neuropathic stock, or to underestimate the importance of alcoholic intoxication as an irritant to sensitively balanced nervous systems, or to disregard the effect of alcoholic poisoning on the nervous system of the developing embryo. It is my object merely to call attention to the fallacy of assuming that because an epileptic drinks, or his parents drank, such facts make sufficient evidence for generations concerning the cause of epilepsy.

Eyestrain

Eyestrain may hardly seem worth mentioning, but it is believed by some to be the cause of epilepsy. Indeed, the epileptic eye has been spoken of.

At the Monson State Hospital for Epileptics, "Eyes are marked by no distinguishing feature." Hodskins and Moore³ obtain no positive findings. In fact, evidence was produced to prove that eyestrain was not of any importance as a primary etiologic factor in epilepsy.

Conclusion

Perhaps the best and most practical view for the general practitioner to adopt is that epilepsy means a tendency to recurrent convulsions; that such a tendency implies a more or less generalized cortical instability, and that epilepsy is therefore not properly due to any cause outside the brain.

Then, too, it is not an incurable disorder. In fact, treatment in accord with the view just mentioned has for years proved more or less effectual when well carried out. For instance, William Aldren Turner of the National Hospital for the Paralyzed and Epileptic in London, an indisputably eminent authority on this subject, gave some figures in 1910 which might be considered accurate proof of this. He published statistics of a large series of cases, many observed for as long as twenty-two years, in which small doses of bromid alone had cured entirely 23.5 per cent, or about one epileptic in every four, and greatly benefited another 50 per cent.

At the Neurological Institute we find that practically all epileptics of the class who live at home and are able to visit the hospital derive great benefit from treatment. A cerebral sedative is used almost always, and this is combined with what other remedies or treatment as study of their psychologic processes and particular difficulties suggests.—J. A. M. A.

³Hodskin and Moore: The Relation of Eyestrain to Epilepsy, J. Ophth. & Oto-Laryngol. 2:169-175, 1908.

SOCIETY CALENDAR

National Eclectic Medical Association meets in Atlanta, Ga., June 15-18, 1920. O. F. Coffin, M.D., Indianapolis, President; Dr. H. H. Helbing, St. Louis, Mo., Secretary.

Eclectic Medical Society of the State of California meets May, 26, 27, 28, 1920, in Fresno, Cal. Ira Wheeler, M.D., Fresno, Cal., President; H. T. Cox, M.D., Los Angeles, Secretary.

Los Angeles Eclectic Medical Society meets at 8 p. m. on first Tuesday of each month. P. M. Welbourn, M.D., Los Angeles, Cal., President; C. Ohnemuller, M.D., Los Angeles, Secretary.

Southern California Eclectic Medical Association meets in October, 1920. Dr. Clinton Roath, Los Angeles, President; Dr. H. C. Smith, Glendale, Secretary.

THE ECLECTIC STATE SOCIETY MEETING AT FRESNO

The forty-seventh annual meeting of the Eclectic Medical Society of the State of California convenes at Fresno, May 26, 27, 28, 1920. Fresno is a progressive city, in the center of the fertile San Joaquin Valley, in which our President, Dr. Ira A. Wheeler, has the good fortune to reside. And we are sure that he and the city will give us all a hearty welcome, because Dr. Wheeler is enthusiastic over the prospects for this year's meeting. Fresno is easily reached by rail from all parts of the state, as it is located on the valley line of the Southern Pacific, and also by automobile, as the valley state highway runs through the city, and all roads lead to the highway, and therefore to Fresno.

Thus our meeting this year should have a good attendance, because of the fact that it is being held at a place midway between the two great cities of San Francisco and Los Angeles, and is easily reached in a few hours by physicians from both cities and the surrounding territory. We hope that everyone who has attended the last few sessions will make sure to report again this year, and also, we sincerely hope that all who have not attended a session for a few years will shake themselves and make an earnest effort to make it this year, and mingle with their fellow-practitioners to the profit of all.

The war and the influenza in the past have kept all of us busy and overworked. Now is the time for us to turn loose for a few days and enjoy ourselves talking over our experiences. Above all, write a paper and send it to the Secretary.

or at least send the title by the 10th of May to the Secretary or to the section officer, so that we may have our program printed and in shape by that time. If you cannot attend, at least let us hear from you by writing a paper for the society. We will have it read. Last year two of our most interesting papers were ones whose authors were unable to attend, yet who wanted to take part in the meeting. Of course we will not like to accept a paper as a written excuse for not attending. So mark a circle around May 26, 27, 28, 1920, and declare it a legal holiday. A list of the section officers appointed by President Wheeler follows.

Yours for a good meeting,

H. T. COX, M.D., Secretary.

SECTION OFFICERS FOR 1920 MEETING

Materia Medica and Therapeutics:

President, J. A. Munk, M.D.

Secretary, Oran Newton, M.D.

Practice of Medicine:

President, J. B. Mitchell, M.D.

Secretary, A. P. Baird, M.D.

Pediatrics:

President, H. V. Brown, M.D.

Secretary, Florence V. Cheney, M.D.

Surgery:

President, E. C. Bond, M.D.

Secretary, O. C. Welbourn, M.D.

Obstetrics and Gynecology:

President, T. C. Young, M.D.

Secretary, Annie L. Bond-Hughes, M.D.

Ophthalmology, Otology, Larynology:

President, H. W. Hunsaker, M.D.

Secretary, E. H. Mercer, M.D.

Electro-Therapy and Hydro-Therapy:

President, F. W. West, M.D.

Secretary, Alex S. Tuchler, M.D.

Bacteriology and Pathology:

President, Pina Welbourn, M.D.

Secretary, H. C. Smith, M.D.

Hygiene and Climatology:

President, G. W. Harvey, M.D.

Secretary, D. A. Stevens, M.D.

Infectious and Contagious Diseases:

President, W. P. Byron, M.D.

Secretary, Charles Clark, M.D.

Entertainment Committee:

E. C. Bond, M.D.

W. P. Byron, M.D.

George E. Meracle, M.D.

NEWS ITEMS

Dr. Finley Ellingwood, Chicago, has come to Pasadena to visit his sons. He expects to remain several months in the hope of regaining his health, which has not been good.

Dr. H. T. Webster, now living in Santa Ana, has returned from a trip to Oakland, where he went on business affairs.

Dr. Wm. Soenneken, Los Angeles, is in the Westlake Hospital convalescing from an operation.

Dr. W. E. Daniels, formerly of Madison, S. Dak., but now living in Long Beach, Cal., was granted a license by the State Medical Board at their last meeting. He does not plan to practice medicine but expects to take a trip to the Orient as soon as traffic is settled again.

Dr. O. C. Welbourn, Los Angeles, entertained the following at luncheon at the Jonathan Club one day in April, in honor of Dr. Ellingwood of Chicago: Dr. J. A. Munk, Dr. W. E. Daniels, and Dr. H. V. Brown.

Dr. Rose L. Burcham, who has been at her mine in Randsburg for more than a year, was in the city for a few days last month, on business.

The Los Angeles County Eclectic Medical Society will have a banquet at their meeting on May 3rd. It is hoped that there will be a full attendance. Friends of the members are invited.

Dr. A. P. Baird, Los Angeles, has retired from practice and offers for sale his office building of six rooms, also a static machine. For information address, 1407 Mahantonga Way, Los Angeles, or phone 39459.

Dr. T. C. Young, Glendale, has completed his new home and is moving in his household goods. Dr. and Mrs. Young have a very beautiful place. Also, Dr. Young has purchased a power launch, which he expects to use for fishing trips, starting from San Pedro.

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:: Original Contributions ::

ADDRESS

W. E. Daniels, M.D., Long Beach, California

Read before the Los Angeles Eclectic Medical Society.

I am sorry that I cannot bring to you tonight a medical subject which we might all discuss, but I trust that what I have to say will be entertaining as well as educational. Just what to name the subject is difficult, but I have chosen to call it "Egypt; Or what will it mean to the world to have the Holy Lands under a Christian Nation."

In studying a nation it is sometimes a good idea to go back and study the people themselves and their country, and then we can often see why it is that certain people do certain things and conduct affairs as they do. First, I want to say that all Oriental civilizations have taken place in the valley of some great river or near some great body of water, and the influence of that body of water has much to do with that civilization and with the government of that people, and no country has been influenced more than have the Egyptians by the River Nile, which is one of the greatest rivers of the world, comparing favorably as it does with the Amazon, Euphrates, Hoang-Ho, Congo, Tigris, Ganges and our own Mississippi, and being exceeded in length by that great river by fifty miles. Its length is therefore 4,062 miles, and the great volume of water thrown into the Mediterranean after all the evaporation and the amount taken out for irrigation and other purposes is 61,500 cubic feet every second. It is the cup and the bread of life to the Egyptians, and were it not for the Nile, the Libian and Arabian deserts would unite to blot out the land of the Pharaohs. Inhabitants could not possibly live in that country.

Egypt is a land of wonders, and so few of us understand much about it, but divorce Palestine from its religious sentiment and Egypt is a much more interesting country to travel

in and to study. When we stop to think that Egypt is as large as all the New England states combined, having as it does 400,000 square miles, not including the Sedans, but out of that 400,000 square miles only 12,000 are under cultivation, all the other is desert, and only as water can be gotten to the soil can it be made to produce, as the annual rainfall is less than two inches.

Again few of us realize the antiquity of Egyptian civilization. The Egyptian history begins with Menes, its first king. This, of course, has come to us through Greek and Roman history and somewhat through Byzantine history and mythology. As near as the best student can arrive at it, its history began 5,000 years before Christ, but age is a relative thing, and let me compare for just a few minutes and see if we cannot arrive at some understandable age by our comparison. Some years ago I was in the city of New York and a friend wishing to make the most of my time, marked out a route by which I could see the most in the shortest length of time. I was to see the great store of Wanamaker, then the Brooklyn Bridge, go down to the great banking house of Pierpont Morgan, see where George Washington took his first oath of office, then on up to Trinity Church and see some of the old things of New York, and among the old things I would see the grave of Alexander Hamilton. As I looked upon that martyr's grave I stood and dreamed and compared things I had seen. I thought of the Old Liberty Bell, and then of the landing of the Pilgrim Fathers, and then of the discovery of America, and then said, this is not so very old after all. Then I thought of that little crypt under the old Church of the Nativity, and that little cradle where the Savior of Mankind was born, and said, "Oh, how far off that is." Then my mind wandered back to the sights I had seen and I said, "After all, that is not so very far back." I had stood on the banks of the Nile some weeks before that and as I stood on the little Island of Rhoda, looking out over the Nile, my guide explained to me that this was the place where Pharaoh's daughter pulled Moses out of the water, and then I said, "Why, the little cradle of Bethlehem does not reach half-way back to the days of that little cradle floating among the rushes of the Nile." Then when I stood by old Cheops and again thought, I said, "the little cradle of the Nile does not reach half-way back to the building of the Pyramids, which were old when Abraham visited Egypt," and one cannot stop there. Two thousand years before that Menthos reigned. I was in the British Museum one day looking over some antiquities. I saw an individual lying in a sarcophagus, and

it looked so natural, I told my companion that it must be wax, but when I read the inscription, it said that this individual was buried in the tombs of Egypt 7,000 years ago.

Just at the close of the great war I was talking with a friend of mine who had more German blood in him than was good for his system. He berated the English, and after accusing them of everything that our country had gone through, I told him to rest a few minutes and I would tell him some history. I then told him that the English as a nation did not try to compel the colonies to submit to them. England at that time had a German king who spoke German and not English, and that when the English people, under her great statesmen, refused to send more men to whip her colonies, King George got the Germans to come over and try to clean us up. I then proceeded to tell him that the English did not hang around in Egypt to wait for "something to happen," so they could step in and take Egypt from the Egyptians, for Turkey owned Egypt, and England was in Egypt with and by consent of the Turkish government, as well as, by the consent of Italy, Germany, France and all of the European nations and the United States. When Egypt tried to repudiate her indebtedness to these countries, England offered to take charge of the country and its revenues and to pay off the debt that Egypt had made, to use the surplus to improve the country and to pay Turkey her \$3,500,000 each year. She did as she promised, and England did not, nor has she ever in any country of which she has taken possession, ever oppressed the people of that country, but on the contrary has always improved the condition of that people. Egypt is no longer a country that is starving one year and having to spare the next year, but with the conservation of the Nile water and a system of dams, dykes and canals she makes the valley give from three to four crops every year. The cities are as modern as most of our American cities. Education has been advanced until today if one wishes to enter the professions he must not only have a high school education, but must have a full collegiate education and in the medical profession must have five full years and one year intern. Today no country is better cared for, her people protected, fed, housed and educated than Egypt, and all by the English people. When we, as Americans, get out of our systems the idea of English tyranny and English dominance and hatred of America, the better it will be for us and the world at large. We are one and our ideas, civilization, education and religion are practically one and the same. It is my opinion that the world is destined to be ruled by the English speaking people, and

surely we are that and therefore a part of the great English people.

Now England has taken the Holy Lands and what does that mean? I am no prophet, even if I am the seventh son in succession, but I do say this, and believe it with all my heart, knowing as I do the great gift of the Jewish people to the world at large and her great help to England when she needed money and men, for had it not been for Jewish money and help, England would have been all but defeated, that England is too wise to let an opportunity go by to show appreciation, and will therefore make Palestine a Jewish nation. The Jews will again return to that Holy Land and again be a people with a country under the supervision of England.

Medically speaking, Egypt is far in advance of some of the European countries, as England has done much to keep her clean, yet there is nearly always cases of smallpox and other dirty diseases present, but the most prevalent trouble is, and one sees it on all sides, conjunctivitis, trachoma and other kindred diseases. Much of this is due to the extreme brightness of the sun and the heat with the fine particles of dust in the air. As perhaps you know, the dust of the desert is finer than the dust of Southern California, and when the wind brings it from the desert, a "Santa Ana" wind is a mild zephyr in comparison. Water is not especially plentiful and I want to assure you that the people are not Baptists, and in many places it is no unusual sight to see several people washing in the same basin or water trough, and done or more suffering with sore eyes. England, to date, has not been able to teach the rural population that conjunctivitis, trachoma and other kindred diseases are contagious. Liver trouble is quite common, and along the Nile, where vegetation is very rank and stagnant water is likely to be found, splenic diseases are common and prove quite fatal. Lepers are quite well cared for and one can notice the difference in their care there and in other parts of the Turkish empire, where they are allowed to go at will, but are restricted to certain parts of the town where other people mingle freely with them and no especial attention is given them.

THE MUNK CATTLE RANCH

J. A. Munk, M. D., Los Angeles, Cal.

When the Munk Brothers located their cattle ranch in Arizona in 1882, it was in the days of free grass and the open range on the public domain. It was also during the dangerous years of Apache warfare, when human life in that country was an uncertain quantity. Except for the presence of hostile Indians, conditions seemed favorable for doing a successful cattle business, and we went ahead on the motto of "Nothing ventured, nothing gained."

Railroad Pass, where the ranch is located, was named by Lieut. J. G. Parke, back in the fifties, while he was in charge of a surveying party to find a practical route for a railroad to the Pacific Coast. The Southern Pacific Railroad was built upon this route in 1880, which facilitated immigration and transportation into that new land and started town building. The Pass is bounded on the east by the San Simon Valley, on the west by the Sulphur Spring Valley, on the south by the Dos Cabezas Mountains, a spur of the Chiricahua range, and on the north by the Graham or Pinaleño Mountains. It is in the heart of the Apache country, which was once the home and hunting ground of the most savage and ferocious tribe of Indians that ever lived. The principal chiefs of the Chiricahua Apaches were Cochise and Geronimo, who were aided and abetted in their devilish work of robbing and murdering people by the once famous Mangas Coloradas, leader of the Mimbrenño band. These three men were typical of their kind and, together with a score or more of minor chiefs, kept the country in a constant state of terrorism.

Indian trails criss-crossed the country in every direction, but led mainly north and south through the Apache stronghold of the Mogollon and Chiricahua Mountains, and were made by the Apaches in their frequent forays to and from Mexico. After the United States took possession, the government built a chain of forts that extended from the Mexican border northward into the White Mountains, and consisted of the following units, namely: Huachuca, Bowie, Grant, Thomas, San Carlos and Apache. These posts were established to furnish supplies and shelter to the frontier army, and to give protection to settlers and travelers passing through the country.

The land at that time was thinly settled. A few farms and ranches were being started and some hardy prospectors lived in the mountains. Houses were few and far between and distance was seemingly endless. Everything was yet in

a primitive state and nature unspoiled. A horseman could ride all day long in any direction and not meet a human being, nor see a single house or fence.

The grass stood knee-high and was stirred into rippling waves by the gentle breeze over a broad meadow, as far as the eye could see. Game of all kinds was plentiful and roamed the plains and mountains unmolested. After the cattle came, deer and antelope sometimes mingled with the herds, and grazed as contentedly as if nothing new had happened. There was plenty of feed but water was extremely scarce. The landscape looked most inviting, but, owing to a lack of water, the land was unoccupied. Seeing the beauty of the place and the abundance of grass everywhere, it was decided to locate the ranch in this favored spot, and take a chance on finding water.

In looking about to see what we could find, several small springs and wet-weather brooks were discovered in the foothills of the Dos Cabezas Mountains, on the south side of the Pass, which proved to be active only during the rainy season and soon dried up. Several wells were dug in the hope of striking a permanent flow of water, but without success. Under these circumstances, it appeared doubtful if a ranch could be started. No chain is stronger than its weakest link and even with plenty of grass, but without water, the cattle must perish.

However, not to be thwarted in our purpose, as we were told others on a similar quest had been, further diligent search in a new direction fortunately resulted in the discovery of an underground spring that came near but did not quite reach the surface, where a fine flow of water was encountered at a shallow depth, by digging. Getting such a stream out of a bank of perfectly dry ground, seemed as improbable as causing water to gush from a desert rock by smiting it with a magic wand, as told about in fairy tales, and was, indeed, an agreeable surprise.

The big spring is located at the point of the Pinaleno Mountains, on the north side of the Pass, and fully fifteen miles distant from where the search for water first began. It is one of the biggest and best springs in that entire region and furnishes an ample supply of water for every ranch need. It is never affected by the weather, nor does its flow ever change; and it has watered thousands of head of stock in the driest seasons. Its unvarying steady flow and unchanging temperature of 70 degrees Fahrenheit throughout the year, denotes that it comes from a deep and far-off source to acquire these properties. The water is perfectly pure and

as soft as rain-water. It is wholesome as a beverage and suitable for every purpose.

Upon the bank above the spring is found plenty of evidence in the form of arrowheads, stone axes, metates, rubbing stones and broken pottery, to show that the place was once occupied as a favorite resort by the native tribes in their migratory wanderings long ago. From some unknown cause the spring became covered up and lost until it was rediscovered as described.

Here the ranch buildings and corrals were located and have been the center of ranch activities ever since. As the ranch covers a wide territory, other lesser outlying camps were made near small springs, or water-holes, dug in the ground for gathering and storing storm water for the cattle. Each camp has a cabin and a corral and is used by the cowboys when away from the home ranch, on emergency work, rounding up and branding calves.

At the beginning, while we were waiting the arrival of cattle and the work was not pressing, the men who were idle took themselves to the hills and did some independent prospecting in order to kill time. One day, one of the men who had dug himself in, heard a noise above his head and, looking up, saw several Indian faces and eyes peering down at him. His unhappy fate might have been sealed then and there, but by good luck it happened that the uninvited guests were friendly Apache scouts instead of hostiles, who were under the command of an army officer, trailing a bunch of broncho bucks that had left their reservation without a permit and were on their way to Mexico. It gave the man a big scare, but as no harm was done, the incident ended happily. This event was only one out of many similar happenings, either amusing, serious or tragic, that were likely to occur almost any day in the regular routine of ranch life.

The original range cattle were known as Longhorns, on account of their enormous headgear. The horns measured frequently five or six feet across from tip to tip, and were certainly fierce looking and dangerous in a fight. They were native wild cattle of an inferior grade, brought from Texas and Sonora, and were the only kind of cattle obtainable at that time. They were desert-bred and accustomed to an arid environment. They had much of the nature of the camel and could exist on little food and water. A little of this kind of blood is desirable in range cattle, as it enables them to rustle a living while others perish when grass and water are scarce. These cattle have been gradually graded up, by importing new breeds of pure blood, mostly Shorthorns and

Herefords, until the scrub element has been nearly bred out. Herefords, or White Faces, as they are sometimes called, are now the prevailing type of cattle seen on the ranges of the Southwest.

Being country-bred and somewhat familiar with farm life, we were nevertheless tyros in the range cattle business, but willing to learn. Our method was to begin in a small way at the bottom of the ladder and gradually work up as circumstances and experience should dictate. This plan was followed strictly from the beginning and proved to be right, as it resulted in success.

Our first purchase of cattle was obtained under difficulties. The only ones we could find were of poor quality, high priced and far away, and hard to get and bring home. A cattle boom was on and everybody had the fever, and all wanted to get into the business at the same time. As Mexican cattle were the nearest, we made our first purchase from the J. H. Slaughter ranch in Sonora, just below the border. They were of the usual Longhorn variety and as wild as deer.

The market price of a scrub cow was thirty dollars, with the calf thrown in if there was one. The herd numbered two hundred head, to which aggregation was added a remuda of twenty-five cow ponies for driving the cattle home, a distance of one hundred miles over an open country. The creatures were very wild and not easy to drive or locate on their new range. We succeeded in bringing them home, but notwithstanding that they were close-herded for a time, some of them got away and ran off to their former range. We gave the renegades a hot chase and captured some of them, but a few were lost that we never did find. Once cattle get accustomed to a range, they become contented and are not apt to stray far. This herd was bought in 1883 and another one like it in 1884, also from the Slaughter ranch, and on the same terms.

From that time on we bought and sold cattle as we had need or opportunity. The steers when sold were gathered and shipped to northern pastures and feeding pens in the corn states, to be matured as beef for the market; while the cows and heifers were kept for breeding purposes, to increase the herd. In this manner the cattle were being constantly changed and their quality improved. The southern country has a mild and warm climate that is favorable for breeding and the survival of the young, in which industry Arizona excels.

When the market was dull and sales slow, a surplus of cattle soon accumulated and overstocked the range, which resulted in a dangerous shortage of feed. Then at least a

portion, if not all, of the herd, had to be moved to a new range, if one could be found, or disposed of in some other manner, the way of which was not always clear or easy to know. While the country was first being opened to cattle during the boom days, so much stock was rushed into graze that the range became overstocked, and all of the grass was soon cleaned up. The men who saw the grass covered plains in the early days scarcely believed that the grass would ever entirely disappear under cattle any more than under the buffalo, but that very thing happened, to the surprise of everybody. After the hard lesson of overstocking had been learned, the stockmen were more careful in not letting their herds grow to an unwieldy size, and sold off the surplus stock at any price it would bring, in time to prevent a catastrophe.

Our one serious loss of cattle was from this cause during the early nineties, when there was a succession of several dry years. All kinds of feed was very short and the range heavily overstocked. Without grass, even water could not save the famished cattle, and there was no way out of the difficulty. The feeble old cows came straggling in after their long journey in search of a little grass, looking thin and weary, and were too dry and thirsty to drink. They lined up at the water-trough, which was always brimful and running over, touched their muzzles to the water, and drew back their heads with a jerk as if the touch hurt. This performance was repeated many times before they began to drink. After getting fairly started, they settled down with great gusto to a prolonged steady pull on the water, and never paused once until they were full. As they drank, their empty flat sides gradually swelled out and grew round like a barrel. By the time they were ready to quit drinking they had acquired such a weight of water that their weak knees gave way under the load and they sank down in their tracks to rise no more. Whenever a cow got down on her side in this fashion, she was helpless and unable to get up again; neither could she be helped up to stand on her feet, and it was only a short time until she expired. Carcasses dotted the corral like a shambles and were dragged away into a side canyon to add more costly but useless raw material to the boneyard.

At that time our range was carrying several thousand head of cattle and the loss was heavy. After it was all over, the decimated herds could have been counted by hundreds instead of thousands, as formerly. The loss of cattle was general, which discouraged the ranchmen so much that they were as anxious to get out of the business as they had been eager to get in only a few short years before, and many of

them did quit. But we stuck, and by staying found out later that our loss was not as serious as it seemed to be at the time, and the difference was soon made up by the natural increase.

Every staple industry has its fat and lean years, which is likewise true of the cattle business. At a time of depression it is necessary to hold on and wait for the return of better days. By a natural law of compensation there is bound to be a reaction after every period of depression, and by exercising faith, courage and perseverance, prosperous days are sure to come back.

Although cattle will sometimes fatten on the open range, it is only during an exceptionally good season that this can be done, when there is plenty of rain and an abundance of new grass. All of the old grass disappeared years ago, and it is rarely that any of the new crop holds over from one season to the next. The only grass that is now available is what grows each year, and even this supply is not dependable, as the rainy season is variable and uncertain, and apt to be regional. Rain may be abundant in one section and entirely absent in some other region so near by that they are within sight of each other. For this and other reasons it is always a guess what the year will bring in the range country. But even with a scant growth of grass, cattle will pull through the year as the gramma grass is very nutritious and a little of this feed goes a long way; however, the necessity of taking a chance occurs frequently in the range cattle business. There is never any hand feeding done, as it is regarded as too expensive, and the cattle are expected to find their own living or starve.

The cattle on neighboring ranches naturally get mixed up while running together on the open range, and need identifying marks to distinguish them. For this reason each ranch has its separate earmarks and brands so that the owner can know and claim his own. Another difficulty in range work is that when cattle are running wild they cannot be counted as accurately as if they were in an inclosure. A range count, as it is usually taken, is like making a rough guess. Keeping tally of the calves that are branded during the year and multiplying the number by three, is considered to be as nearly correct as can be made in a general estimate.

The profits of a herd depend on the size of the calf crop, although an increase in the price of stock cattle also helps some. The steers are usually sold as yearlings, but some of the youngsters are likely to escape in the first round-up and are picked up at some future time and counted as "twos" or

"threes" when sent to market. The average price of a yearling steer was fifteen dollars for many years, but the price has been known to drop as low as six dollars and, again, as only recently, to rise as high as forty dollars.

Our fixed rule, from which we have never deviated, is not to ship any stock until it is sold, and to sell only to buyers who will contract sales for local delivery. If there are no buyers in the field, the cattle are held on pasture, to go over until the next season, or to die, if they must, for want of feed. Sales are usually made on contract, at so much per head for yearling steers, with an additional five or ten dollars for "twos" and "threes," according to their age.

At the time of being gathered the cattle are required to be in good shipping condition, and are delivered on a designated date at some shipping station on the railroad, f. o. b., when the new proprietor takes charge.

During the recent years many changes have taken place in the range country. Much new land has been surveyed and laws have been passed to regulate the buying and leasing of public land. Settlers have come in and located homesteads and are trying to farm, but without much success, and the grazing land has been either bought or leased by the cattlemen. The old style of ranching has ceased and is a thing of the past. A few small ranches continue to operate but the big ones have nearly all disappeared. Those that remain have reduced their herds and made other changes to meet the requirements of the new regime. Practically all of the land is fenced and the owners hold possession.

The old-timers, who are familiar with the arid characteristics of the range, never dreamed that any such changes as have happened could ever take place, but they are an accomplished fact. What the nesters will be able to do is yet an unsolved problem. Pioneering in any new country is always attended by difficulties, and on the desert where the hardships are particularly trying it is extra hazardous. Farmers must have water for their crops, and in a land that is almost rainless and waterless the prospects for success are not flattering. However, there are always optimists who are ready to experiment and willing to try anything on a chance, that presents itself. It is this small class of brave and courageous men and women who dared, that pushed back the unpromising frontier across a continent, reclaimed a vast wilderness, and blazed the way for our modern civilization.

In past years our range extended clear to the horizon, but it is now restricted to a fenced pasture six miles square. It is capable of supporting one thousand cows and their in-

crease, which in these piping days of high taxes and cost of living is enough to worry about. A system of iron pipes, cement water-troughs and reservoirs has been installed, so that each one of the several pastures gets its separate supply of water direct from the spring.

Having the herds segregated and under control in fenced pastures has some advantages over the open range, in that it simplifies the ranch work, gives the cattle better care, requires fewer cowboys and is less expensive. One very desirable feature is that the owner can give the business his personal attention and be independent of selfish neighbors and arbitrary cowboys.

In the fall of 1918 we held our last open range roundup, accompanied by the usual diversity of incidents peculiar to such a gathering. Sixteen cowboys participated in the event and managed to keep things moving lively. One day one of the men on dismounting threw his revolver and belt upon the ground, when the gun exploded and shot a ball through his arm. Another man while riding after cattle was thrown from his horse and had his collar-bone broken. Such incidents are almost of daily occurrence in handling cattle.

It has always been the custom of the range for cowboys to carry revolvers, presumably for self-defense in an emergency. Some of them have become quite expert with a gun and are known as gunmen because they are quick on the trigger. In the early days when the country was new and wild, it was necessary to go armed, but that excuse no longer exists. It is a useless and dangerous practice for a man to carry a gun and the habit should be prohibited. More injury results from the careless use of firearms than from any other kind of accident. In all of my travels through the Indian country I never carried a revolver, and a rifle only a few times when danger threatened from hostile Indians who were out on the warpath raiding the country.

After subjugating the fighting Apaches and suppressing the outlawry on the frontier, the necessity for firearms became obsolete; and with it departed the glory of the gunman from the wild and woolly west.

THE MUNK BOTANICAL GARDEN

We are sure the graphic description of the Munk Botanical Garden and Arboretum published in this issue will prove interesting and instructive. It is a doctor's hobby with a purpose, and that purpose is a laudable one—an effort to determine the adaptability of medicinal and other plants to new habitats.

Again the doctor proves that no one need deter a project because he is basking in the rays of the sunset of life. Such diversions make one younger and the world does not lose thereby.

We have seen Dr. Munk's paradise, in its beginning. We should like to see it now. We have also contributed slightly toward its furnishing. We believe that if more such efforts were made there would be a better knowledge of vegetable drugs than is ordinarily possessed by the average doctor. We have hoped, probably futilely, that every medical college in the land would have access to a medical botanical garden. When Eclecticism started its Mid-West career its college at Worthington had a botanical garden and from it the students derived a first-hand knowledge of medicinal plants. We had in our own garden two of the last surviving plants from that old garden, the "blue flag" and the "marsh mallow," but they too have perished. But who can say how broadly over the land were heralded from that infant institution the virtues of *Iris versicolor* and the *Althea officinalis*, the records of which have been handed down through our journals and early works on materia medica.

There have been some feeble efforts in this country to establish medicinal gardens—usually as a part of general botanical gardens. When the National met in St. Louis we sought the "medicine patch" in the Shaw Gardens (Missouri Botanical Gardens) and by diligent search could discover but few of the most non-essential of physic plants. The National Botanical Garden at Washington a few years back boasted of but little better. Now a revival has taken place and some of the colleges of pharmacy, notably in Wisconsin and Nebraska, have quite elaborate and well cared for gardens and the material is *used* in teaching. What would one interested not give for a glimpse into such gardens as flourished in the early days in America—Bartram's and Marshall's and Evan's Gardens in Pennsylvania, the Elgin Gardens of New York, fostered by the polished and fashionable physician, David Hosack; and other gardens of a similar type, in which not only were included all horticultural types, but a wide variety of medicinal herbs. After these types Munk's Garden is a worthy successor, and we hope it may grow and flourish as the bay tree, and bring forth every kind of herb for the good of the nations.—Ed., Eclectic Medical Journal.

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O. C. WELBOURN, A.M., M.D.
Editor

D. MACLEAN, M.D.
Associate Editor

P. M. WELBOURN, A.B., M.D.
Assistant Editor

SPECIAL CONTRIBUTORS:

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FINLEY ELLINGWOOD, M. D., Chicago, Ill.

HARVEY W. FELTER, M. D., Cincinnati, Ohio.

J. B. MITCHELL, M. D., San Francisco.

A. F. STEPHENS, M. D., St. Louis, Mo.

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ALKALIZATION OF THE BLOOD?

One of the inherent traits of the human race is a desire for change. When it finds expression in the shape of a hat or an automobile, we call it a change of style. And how we do hate to be out of style! Like the style in clothes, the practice of medicine is constantly changing and it follows the same natural law in that it runs around in a circle repeating itself in each succeeding generation. The present fad is the alkalization of the blood—an idea which is neither new nor original. Many of our readers can remember when this epidemic struck us before. Then, the drug most used was alkalithia; now, it is bicarbonate of soda. The idea in each instance being that the blood had become acid instead of alkaline. Whereas the facts are that the blood is neither acid nor alkaline and probably cannot be made so, even though a large quantity of acid or alkali be consumed. But notwithstanding the fact that the blood constantly remains neutral in reaction, it is true that a certain definite set of disease expressions are produced by an excessive intake of

acids, and quite another by an excessive intake of alkalies. And if a large percentage of the people in a given community should be using either acids or alkalies in excess, it becomes a complicating factor in all diseases present at that time. In a limited sense it is an epidemic and should be met by an epidemic remedy. Obviously the needed drug may be an acid or an alkali, the indications being to neutralize the one shown to be in excess. In this locality and at this writing a majority of the people—no difference what the disease—need an alkali, but that is no reason for prescribing it to all of them. Many of them do not need it and a few need an acid. And certainly these would be harmed rather than benefitted by the use of an alkali. Even so simple a drug as an acid or an alkali must be given with care and the indications for each should be kept constantly in mind. Briefly they are: a tongue covered with a pasty white fur and associated with a pale mucous membrane—not due to anemia or local causes—indicates an excess of acid and calls for an alkali, usually bicarbonate of soda. Frequently the tongue is also doughy and it indicates deficient innervation from the sympathetic. A deep red tongue, probably dry, indicates an excess of alkali and calls for an acid, usually a fruit juice. By some, acids and alkalies are considered to be foods and given consideration under the subject of diet. But this is immaterial. The essential point is to know when to prescribe acids and when to prescribe alkalies.

AMERICAN PHARMACISTS AND THE BEGINNINGS OF COLLOIDAL CHEMISTRY—AMERICAN PHARMACEUTICAL ASSOCIATION RESEARCH

In an editorial of the *Kolloidchemische Beihefte*, devoted wholly to the one subject, Dr. Wolfgang Ostwald makes acknowledgment of the priority of work in colloidal chemistry accomplished by Prof. J. U. Lloyd. In this publication also appear verbatim translations of the early investigations of our distinguished member, contributed to the American Pharmaceutical Association and printed in the proceedings of the years 1879 to 1885. The entire issue of *Kolloidchemische Beihefte*, containing pages 174 to 250, is made up of a translation of Prof. Lloyd's original text explanatory of Phenomena connected with Solution and Precipitation, Fluidextracts being mainly utilized by him for the purpose, together with illustrations accompanying the original contributions referred to.

Those who were permitted to hear Prof. Ostwald's lectures on Colloidal Chemistry, as given before the universities of America, will recognize that there is perhaps no higher world's authority than he, on colloidal chemistry. Under that great authority the priority of the American Pharmaceutical Association is established for advance research in the important field of Colloidal Chemistry.

While the credit belongs to Prof. Lloyd, who celebrates the "golden anniversary" of his membership in the Association this year, his fellow-members appreciate the service rendered by this eminent investigator to such an extent that they justly desire to share in his honors as they do in his accomplishments. Few, if any, have more patiently endeavored to contribute to the progress of American pharmacy. Nor has he outgrown his enthusiasm for the American Pharmaceutical Association, giving, when past the three score years and ten milestone, the very best evidence, should this be necessary, of what the Association stands for and what it has achieved.

Editor Ostwald states in the cited editorial preface (pp. 171-173) that these researches (Lloyd's) as given in our transactions, should be utilized in textbooks for the general reader. The last paragraph is particularly significant; unusual considerations are therein acknowledged, and the testimony relative to the value and priority of these early investigations in the great field of Colloidal Chemistry, which runs through the entire article, is reaffirmed by the concluding lines. A translation of the aforementioned editorial, from the German, by Dr. Sigmund Waldbott, follows:

Kolloidchemische Beihefte

Editorial Preface to John Uri Lloyd's Translated Article (1879 to 1885) on Pharmaceutical Studies. Translated from the German by Dr. Sigmund Waldbott.

The following article is the translation of a series of investigations, the first of which has been published as long as 37 years ago, and which appeared in the Proceedings of the American Pharmaceutical Association between 1879 and 1885.

Prof. J. U. Lloyd has acceded to a special request of the Editor to permit him to republish at least the greater part of these investigations, which originally were published in the form of lectures; he has in accord therewith reprinted them again, without revision, supplied them with reproductions of the original cuts, etc., leaving the selection of the subject matter to the Editor.

Indeed it is not historical interest that prompted the Editor to induce Professor Lloyd to have his studies republished in the present form. Neither has he been guided by the consideration of the fact that these studies have become known only to a small circle, owing to the limited circulation of the medium of their publication, to members of the Society only.

The Editor rather takes the ground that in these studies, with truly classic thoroughness and penetrating power of reasoning, "New Views of Everyday Phenomena" (Charles Darwin.. have been discovered and discussed, and they contain so much of what interests us today in our domain of applied Colloidal Chemistry that in many places a direct connection with the "questions of the day" becomes self-evident.

To give examples: Even very recently, the question of the cause and effects of turbidity in pharmaceutical tinctures has been spiritedly discussed. As far as the Editor is aware (and he has been interested in these phenomena also for other reasons, and has consulted published literature) there is nowhere indicated, including the manuals and the pharmacopoeias, even approximately, such a complete, thorough and diversified discussion of the factors involved as is contained in the present study of J. U. Lloyd. The discussion of this investigator on this subject, and not less so on the theory of percolation, the interesting experiments on the influence of the dimensions of the percolator on the yield, etc., are of such a nature that they should be incorporated, partly quoted in full, in the textbooks on the preparation of pharmaceutical substances. . . .

Furthermore: To the questions of the day in Colloidal Chemistry belong the phenomena of Liesegang's Rings, in general the phenomena of periodical spacial discontinuities resulting from theoretically continuously progressing reactions in space, as, e. g., chemical reactions, precipitations, crystallizations, solidifications, etc. In the present study, J. U. Lloyd describes undoubtedly the simplest, and, therefore, theoretically the most important experiment of this kind that has been published so far. It is sufficient to place into a test-tube, previously filled one-half with water, a little syrup of sugar (which sinks to the bottom, the solution above it being thinner and thinner toward the top), and warming this system laterally. After a little while there will be strikingly sharp formation of layers of different degrees of refraction. But this is not the only unpublished experiment of simplest nature known to the Editor in this field. Prof. J. U. Lloyd demonstrated to the Editor in his laboratory in Cincinnati a

test-tube in which distilled water showed 3 to 4 distinct layers which were produced simply by systematically heating the water on top and cooling it below. Beyond question, a further experimental and especially a philosophical analysis of the causes of the formation of these layers in continuously decreasing field of energy will be of utmost importance with reference to the case of Liesegang's Rings: In part, the analysis of these at first sight is really startling because unexpected phenomena is contained in the present treatise. There are further to be found in its observations on periodical precipitations in tinctures, as they form "spontaneously;" also their experimental and philosophical analysis reveals immediate relation to analogous processes in jellies. Furthermore, J. U. Lloyd has described exceedingly interesting experiments on capillary analysis, apparently altogether independently of the experiments by Schonbein and F. Goppelsroeder. Here are described some experiments which treat of a phase of these phenomena hitherto but little investigated. Systematic experiments are shown on the influence of concentration of dissolved substances both with reference to the height of rise of pure water and the dissolved substances retained by the filter paper.

Here also J. U. Lloyd describes experiments which are exceedingly striking. No more surprising lecture experiment is known to the Editor in connection with separation by capillary adsorption than the experiment described by Lloyd in which a strip of filter paper "pumps" water off, not only from a ferrous sulphate solution but also from dilute sulphuric acid, into another vessel; of course, only in small limited quantities.

It has been customary heretofore to print in **Kolloid Zeitschrift** and **Kolloidchemischen Beihelfte** reproductions of already printed articles. The Editor, however, is of the opinion that the greater number of the readers, after the study of Lloyd's treatise, will share his view that we are here confronted with an even unusually "original" communication.

WO. OSTWALD.

The introduction of the contribution on "Solvents in Pharmacy" (This Journal, 1917, p. 940), explains the connection of the later articles by Prof. J. U. Lloyd with those of the Proceedings in the volumes of 1879 to 1885. As is stated in the introduction, the cosmopolitan text, "Precipitates in Fluidextracts," enabled him to enter into any plant pharmacy manipulation, the study chiefly concerning physics, as applied to or involved in pharmacy. These studies included the beginning of what is now so popular the world over,

under the term of "Colloidal Chemistry." Considerable unpublished work, continuation of the previous subject, by Prof. J. U. Lloyd, is now being prepared by him for This Journal.

The importance of these records to Pharmacy and the American Pharmaceutical Association will be recognized without further comment. There is also a real satisfaction in extending congratulations to one, the scroll of whose past records of accomplishments during nearly three score years of service in and for pharmacy is still unfolding.—E. G. E., Journal of American Pharmaceutical Association.

ENEMAS AND LOCAL TREATMENT OF THE LARGE INTESTINE

George M. Niles, Ph.G., M.D., Atlanta, Ga.

In the following study the writer will endeavor to adequately cover a subject much neglected in the text-books, but which merits much more thoughtful attention than it has received.

Enemas

The various methods of injecting fluid into the bowel come under this term, though there are many variations in method and indication.

The principal methods consist of:

1. The simple enema, where fluid is injected into the lower bowel.
2. Irrigation with a single tube.
3. Irrigation with a double-current tube or other special appliance.
4. Proctoclysis by the drop method of injection.

There are quite a number of indications for the employment of enemas, or intestinal irrigation, some of which are:

For local treatment of diseased conditions of the gut, as catarrhal colitis. In proctitis, prostatitis, or any acute inflammation in the pelvic region. For the relief of pain and irritability in the anal region, as in spasm of the sphincter. To aid in the absorption of inflammatory products in the pelvis, as of post-uterine adhesions. To replace the loss of fluid in the body, as in cholera, or after severe hemorrhages. To dilute the poison of disease and promote diuresis, as in uremia.

To check hemorrhage by the local effect of fluid either very cold or very hot, as in hemorrhage from ulcers in the rectum.

To assist in emptying the bowel, either by direct irrigation, or by the presence of fluid; to stimulate the gut to ex-

pulsive efforts, as in constipation, or obstipation from retained masses of hardened feces.

To affect the heat centers, as by hot irrigations in lowered temperature from shock, or cold irrigations in high fever.

To exert an anti-spasmodic effect, as in colic.

To aid in the expulsion of gas, as in excessive tympanites.

To exert a mechanical effect, as in intussusception.

To employ the fluid as a vehicle for the introduction of nourishment, as in nutritive enemata.

Tact, Ingenuity and Skill Required

There are few simple mechanical procedures in the realm of therapeutics that admit of the display of more tact, ingenuity and skill than in the administration of enemata. To inject into the bowel a sufficiency of fluid to meet a given indication; without pain or discomfort to the patient, so that it can be retained long enough to accomplish the desired purpose, is not such an easy matter as some would suppose.

The Necessary Apparatus

For enemata may consist of a one to four-quart fountain syringe of rubber, or an irrigating jar of glass or porcelain with an opening at the bottom. This is connected with rubber tubing which may have its end nozzles of various sizes and shapes, or the part intended to be introduced into the bowel may consist of a tube with recurrent flow, or a soft-rubber catheter.

Either hard-rubber nozzles or soft-rubber tubes are preferable, as, in the injection of hot fluids, a metal nozzle becomes unduly heated and uncomfortable to the patient.

The amount of hydrostatic pressure to be exerted requires judgment. In irritable conditions of the intestinal mucosa, the flow should be slow and gentle, perhaps frequently interrupted, so that the sensitive bowel will not spasmodically contract, and expel the fluid too soon. Under such conditions, the container need be only one or two feet above the buttocks of the patient. Ordinarily, the bag or container may be held or hung from two to five feet above the patient. Higher than that, unless extreme hydrostatic pressure is desired, as in intussusception, is fraught with danger.

Quantity

The amount of fluid to be injected depends upon the results desired. To simply stimulate lagging peristalsis, a pint, or even less, is usually sufficient. Many individuals are

slightly inclined toward constipation, and need only a gentle stimulus to "wake," as it were, intestinal contractions. Many of these have in the toilet a convention fountain syringe, which is brought into use, should the regular daily evacuation be tardy. The employment of a small enema of warm water under such circumstances causes practically no disturbance of the alimentary tract, and is greatly preferable to the constant and promiscuous self-administration of laxatives.

Enemas intended to flush the colon, or to dislodge fecal accumulations higher up, may consist of a quart and a half, or even two quarts. The last I consider a maximum. The practice of introducing into the bowel vast quantities of water—one or two gallons, or even more, is reprehensible, and liable to cause dilation, with later on paralysis of the bowels.

Let me insist that **several** enemas of one quart each are infinitely better than one enema of **several** quarts. If this statement convinces its readers of this **one** basic fact, my efforts will be well repaid.

Many times, if the first enema is fruitless, the water returning clear, if repeated one or more times, peristalsis will be set up, the hardened contents will in the meanwhile be softened, and satisfactory fecal results will ensue. The mere fact of repeated injections need cause no more apprehension that the mere fact of repeated ablutions to the surface of a soiled and crusted skin.

Temperature

Cold enemas are indicated only in the presence of hemorrhage or hyperpyrexia. Their use is limited, and generally, any benefit which might be attained by the injection of cold fluid into the bowel, is more comfortable and safely accomplished by other means.

Generally speaking, the fluid should be about the body temperature—perhaps a little warmer. For the relief of inflammation in the intestinal mucosa or adjacent structures, the water may be quite hot. Albright advocates a temperature of 120 deg. F., while Jamison advises a temperature of 135 or 140 deg. F. I would hardly advise an irrigation with a temperature above 125 deg. F.

The irrigating tube must never be removed while the hot solution is in the **rectum**, as, should it come in contact with the anus, it would cause decided pain. It must be remembered that the interior of the rectum will comfortably bear a degree of heat that the anus cannot endure, so the instrument should not be withdrawn until after the fluid ceases flowing through it, and then slowly.

Lubrication

It is always conducive to the comfort of the patient that the nozzle, the entering tube, or the colon tube be well lubricated. Vaseline, olive oil, castor oil (warmed), or even toilet soap will answer the purpose. Laundry soap, or the cheap grades of turpentine soap are useful in the water, but are unsuitable to lubricate a tube that passes over a possible tender or excoriated surface.

Preparation of the Irrigating Fluid

A simple enema for gentle stimulation of peristalsis may consist of warm water alone.

The so-called S. S. enema consists of warm water into which sufficient soap is rubbed to form a liberal amount of soapsuds. In such an enema laundry or turpentine soap may be used, as this soap exerts a slightly stimulating effect.

The saline enema (normal) consists of one teaspoonful of common table salt to the pint of water.

An oxgall enema contains one teaspoonful of oxgall to the pint of water.

The Hare enema consists of magnesia sulphate, one tablespoonful; glycerin, one ounce; water, two quarts.

Various carminative enemas may be prepared by adding to the water one or more tablespoonfuls of milk of asafetida, to the quart of water, one teaspoonful of powdered alum or powdered borax to the quart, or a weak infusion of camomile.

Emollient enemas contain corn starch in sufficient quantity to thicken the fluid; or flax-seed meal or slippery elm bark, with the water strained. Gum arabic or tragacanth is also used.

Antiseptic enemas may contain permanganate of potash, one to two or five thousand, nitrate of silver; fifteen grains to the quart; phenol, thirty grains to the quart (being sure that it is all returned); chlorinated lime, half teaspoonful to the quart; commercial sulphuric acid, one-half dram to the quart, or the liquor alkaline antiseptic (N. F.), one or two ounces to the quart.

For softening and healing enemas there may be employed several of the oils. These are also employed in the treatment of constipation, and when rightly used, are successful in a large percentage of cases. For healing an irritated intestinal mucosa, there may be added to the oil a small amount of phenol, one dram to the pint; tincture of iodine, the same amount, or bismuth subnitrate in any quantity desired, so the oil is not made too thick by its addition. For inflam-

matory conditions, when pain or tenesmus is present, and the oil is not expected to remain in the bowel any great length of time, the amount injected may vary from eight ounces to a quart, or even more.

In Constipation the Method Is Different

The oil should be placed in a glass or hard-rubber irrigating jar, as its frequent use rots the bag of a fountain syringe. Not over three ounces should be injected the first time, though, as the patient finds the bowel will retain more, this amount may be increased up to eight ounces. When injecting the oil, the bed should be protected by a rubber sheet or other covering. The patient should lie on his left side with his legs flexed and his hips slightly elevated. The rectal tube is slowly introduced, and, as the oil flows in, is gently pushed up until it enters as much as four or six inches. After the oil flows in, the tube is withdrawn, and compressed by the finger during its exit to prevent the escape of random drops. The patient should remain on his left side for twenty or thirty minutes, and, if possible, the oil should remain in all night. This usually is accomplished, except in rare instances of extreme irritability of the rectum, or where the anus is patulous, allowing it to escape during sleep. The injection of oil is generally followed by satisfactory evacuation of the bowels the following morning; but, if not, a small S. S. enema, or a glycerin suppository, will set up enough intestinal contractions.

This method is especially applicable to those forms of constipation characterized by hard and dry fecal masses, with a tendency to accumulation of scybalous collections high up in the large intestine.

The Kind of Oil to Be Used

Some writers advise the pure olive oil, which is both expensive and hard to obtain in many instances. Hemmeter has observed occasional irritation from fatty acids in the oil, and advises shaking the oil with hot water, as the latter takes up the fatty acid. Rosenheim adds a little bicarbonate of soda to neutralize the acid. Either of these procedures I have never found necessary or expedient. Linseed oil has been advocated by some, but when warm it is so fluid that it tends to run out of the bowel, unless the sphincters are quite efficient.

The best and most satisfactory oil in my experience is the **cotton-seed oil**, especially after it has been refined for cooking purposes. The various cooking oils are cheap, easily obtained at the nearest grocery store, and answer every purpose that can be attained by pure and expensive olive oil.

When it is considered that most of the so-called olive oil now on the market is adulterated with cotton-seed oil, the reader may see that it is unnecessary to have the patient pay a large price for supposed olive oil, when the pure cotton-seed oil is fully as suitable for the desired purpose, and much cheaper.

Irrigation of the Large Intestine

This is accomplished by several methods. To irrigate with a single tube, a hard-rubber nozzle may be attached to a rubber tube about two feet long, which is surmounted by a funnel. The water is poured in the funnel, sent into the bowel from an elevation of about two feet, and siphoned out by suddenly lowering the funnel, as in gastric lavage. This method is not very satisfactory, and is useful only to remove softened feces or small shreds of mucus, or in the absence of better appliances.

The best and most scientific methods of irrigation lie in the several forms of recurrent tubes, in which the water flows out as fast as it enters, there is no straining or tenesmus, and the temperature of the fluid can be absolutely regulated. By this method also an unlimited quantity of the irrigating fluid may be made to lave the intestines, and besides mechanically cleaning them, the flatus is relieved by the suction of the return flow.

I prefer the Kemp flexible recurrent irrigator, and the Albright small hard-rubber irrigator, though Tuttle, Hemmeter, and several others have devised successful instruments for this purpose.

The principle is simple, being a double, rigid tube, where the fluid enters by a central tube, while the outflow is carried off by the outer tube, into which the fluid flows by lateral orifices.

In using the double-current irrigating tube, the patient may be either on the back or side, just so the hips are elevated. The height of the douche bag or irrigating jar should be from three to five feet above the patient. There are several precautions advisable, which will facilitate every step of the irrigation: Allow the fluid to flow from the tube before insertion, so as to force out the air, and then check the flow, then renew the flow as the tip of the instrument passes well through the sphincters, so as to force the mucosa away from the irrigator and lateral fenestrae.

The instrument should be well lubricated (the flowing fluid will warm it), inserted with a gentle rotary movement, with the tip directed slightly back toward the sacrum. Do not use force in entering, nor press the tip of the tube against

the intestinal walls. Should the flow cease, rotate the tube slightly, or withdraw it some while rotating, and then push it gently backward and forward till the flow resumes. Occasionally, where there are much hardened fecal contents present in the bowel, the larger masses need to be cleared with a soapsuds enema, after previously softening them with oil or glycerine. The irrigator should be introduced to one-half its length in prostatic cases, and full length in high irrigation.

Should the tube encounter an obstruction, a rectal examination will disclose the cause, such as a possible enlarged prostate, uterine fibroids, redundant hemorrhoids, etc. These, however, can generally be passed with the tube, after their location and size are known. When withdrawing, bring out the tube with a gentle rotary pull, lest the mucosa catch in the fenestrae.

When it is desired to thoroughly irrigate the whole colon, the irrigation may be started with the patient on the left side with his hips elevated; as the irrigation proceeds, he is gently rotated to the dorsal position, then to his right side. As the irrigation is still kept up, he may be rotated in the opposite direction, and the procedure concluded after he is returned to the left side. It is also of assistance to raise the shoulders while on the right side, as this tends to make the fluid gravitate into the caput coli.

Temperature of the Irrigating Fluid

This may vary from 100 deg. F., in intestinal catarrh, to 110 deg. F. in typhoid fever, or any toxic condition, as this higher temperature increases its eliminative effect.

Solutions Employed

Thin flaxseed tea, normal saline solution with spirits of peppermint or cinnamon or fennel, plain water with milk of asafetida, soda, boric acid, tannic acid, tannin, or alum, the latter six medicaments being used in strength of one dram to the quart. Others are the solutions of silver nitrate, potassium permanganate and alkaline antiseptic liquid, as previously mentioned.

One more irrigation fluid I wish to specially mention as worthy of use—the plain kerosene or coal oil of commerce. As an irrigating fluid in chronic proctitis and colitis, where there are old and unhealthy ulcers, with superficial sloughs, and perhaps a chronic diarrhea, an irrigation of one quart on alternate days, until about three or four irrigations have been given, will in most cases yield gratifying results. There seems to be no danger of toxic effects, for, in several instances, quite a residue of the oil has been retained on to three hours before escaping, and in no instance have any

evil or disquieting symptoms ensued. I commend this unhesitatingly.

It will be observed from the various methods discussed in this study that a considerable portion of therapeutics directed toward alleviation of gastrointestinal ailments may be properly placed under the caption of "Local Treatment of the Large Intestine." Let me, therefore, urge my readers to not underestimate the importance of thoughtful consideration and care of the colon and rectum, for in many instances the etiologic key lies here, and here also, by the exercise of suitable measures, may be discovered a solution of the whole pathologic problem.—The Medical Council.

SOCIETY CALENDAR

National Eclectic Medical Association meets in Atlanta, Ga., June 15-18, 1920. O. F. Coffin, M.D., Indianapolis, President; Dr. H. H. Helbing, St. Louis, Mo., Secretary.

Eclectic Medical Society of the State of California meets May, 26, 27, 28, 1920, in Fresno, Cal. Ira Wheeler, M.D., Fresno, Cal., President; H. T. Cox, M.D., Los Angeles, Secretary.

Los Angeles Eclectic Medical Society meets at 8 p. m. on first Tuesday of each month. P. M. Welbourn, M.D., Los Angeles, Cal., President; C. Ohnemuller, M.D., Los Angeles, Secretary.

Southern California Eclectic Medical Association meets in October, 1920. Dr. Clinton Roath, Los Angeles, President; Dr. H. C. Smith, Glendale, Secretary.

NEWS ITEMS

Dr. and Mrs. H. T. Cox of Los Angeles have built a new home and the new address is 4956 Stratford Road.

Died: Dr. George W. Thompson of New York city, graduate of the Eclectic Medical College of New York, 1885; died on April 3rd, 1920. Age, 65.

Dr. D. A. Stevens of Holtville, California, sold his practice early in the year. He has not decided on a new location.

Drs. J. A. Munk, H. C. Smith, H. T. Cox, H. V. Brown and O. C. Welbourn of Los Angeles made up one party which attended the meeting of the California Eclectic Medical Society in Fresno last month.

Dr. Finley Ellingwood of Chicago, who is in California for his health, is at present a patient in the Westlake Hospital. Dr. and Mrs. Ellingwood are located temporarily in Pasadena.

The May meeting of the Los Angeles Eclectic Medical Society took the form of a banquet which was well attended. Dr. Daniels, formerly of South Dakota, made the address of the evening. Dr. Ellingwood made a few informal remarks.

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:: Original Contributions ::

THE TREATMENT OF GOITER

H. W. Hunsaker, M.D., San Francisco

(Read before the California Eclectic Medical Society)

I have selected for a subject to present to you, "The Treatment of Goiter," and will endeavor to confine my few remarks to the treatment of Simple Goiter.

It is not necessary to go into the anatomy of the thyroid gland as that is quite well understood. However, its physiology is not so clear, and in the past many theories have been advanced as to its function. In recent years the ductless glands have attracted considerable attention, and the thyroid is now generally considered as furnishing an internal secretion necessary to development, if not life, by assisting in metabolism.

We know that a diseased thyroid may impair the functioning of many or perhaps all to a degree, of the organs of the body if allowed to develop sufficiently; it seems that it should be our duty to advise early treatment.

The percentage of cures in Simple or Parenchymatous Goiter if taken early will be nearly 100 per cent, and if proved to be Cystic, Colloid, Tubercular, Syphilitic, or Malignant, it will be discovered earlier if treated early.

In the treatment of disease our first thought is to remove the cause. This might be easy and all that would be necessary to do for the patient, if we could locate the cause.

Some have claimed that Goiter was due to an unknown organism taken into the system in drinking water; it is also claimed that it is contagious in localities where it is endemic. And again we are told that it is a lack of iodine in the system, while others claim that it is a mixed bacterial invasion from the nose and throat.

McCarrison, quoted by Crotti, believes the seat of infec-

tion to be in the intestinal tract and in 100 cases where 10 grains of thymol were given night and morning the greater number were either cured or benefited, and I believe there is truth in all these stories. Being a Nose and Throat man, I usually look for diseased tonsils, adenoids, post nasal growths, etcetera; and after removing or thoroughly treating the diseased tissue—and at the same time I put them on calcidine internally and the application of 10 per cent Iodine Petrogen applied to the Goiter on the negative electrode of a galvanic current (the positive being applied to the back of the neck), for ten minutes daily. From two to six weeks of the above treatment is usually all that is necessary. When this treatment fails to accomplish the desired result, the Sheehan, Newcomb method of injection will perhaps do the work. However, as a number of deaths have been reported from injections made into the thyroid gland, I will give their technic.

"The patient is put to bed, but is allowed to get up daily for several hours to break the monotony, provided that he does not display an excessive degree of thyrotoxicosis. A strict nonanimal protein diet is ordered, and small doses of codein at frequent intervals are given. The object is to produce mental and body quiet. Colonic irrigations of 2 per cent sodium bicarbonate are given daily, as this is a powerful way of reducing the toxemia.

"Two bowel movements should be obtained daily. The patient should have plenty of rest; noon and afternoon rest is insisted upon. Plenty of alkaline water should be given. Patients with little means are advised to take plenty of water with the addition of a little sodium bicarbonate. Plenty of outdoor air and sunlight is essential. Tobacco and alcohol are prohibited. A cleansing bath should be given daily to promote perspiration.

"Meat and fish are forbidden. Milk, buttermilk and food cooked with milk should be given. No soups are to be made from meat or fish stocks. Eggs, butter, bread, rice, cereals, cooked fruit and especially fruit juices prepared out of ripe fruit, should be given.

"Of the fourteen patients with exophthalmic goiter, ten were operated on and all recovered, the results of which I attributed mostly to the preoperative treatment. Four cases of the series of fourteen proved inoperable, but the patients were greatly relieved by the injections and preoperative treatment. A careful history should be taken of all patients presenting themselves for treatment. An exhaustive examination

of the throat should be made to determine the form of goiter present, as the injections are of no avail in the Cystic or Colloid forms.

Method

"Five drops of equal parts of tincture of iodine, chemically pure phenol and glycerin are injected into the most prominent part of the gland. The needle is plunged directly into the substance of the gland, and the patient is told to swallow. If the needle is in the gland, it will have a wide, upward and downward movement during the act. If the needle is extraglandular, no such excursion of the needle will take place. Care should be taken to inject the material very slowly, as hasty injection causes great pain, which may be referred to the ears. Other times it will be referred to the jaw and sides of the neck. There is always some pain, which takes place after the fluid has been injected; but this subsides within a short time. If too much of the material is injected, alarming symptoms of acute strumitis may set in. Some patients feel weak; others may actually faint. The interval of treatment is generally five days, but the frequency of the injections will be in direct ratio to the reaction. Some may accept treatment every three or four days, others between the fifth and seventh day. It is never safe to inject more than 12 drops. After the fifth injection, one can readily determine the progress of the case. In some cases five injections suffice; in others, many more may be needed. In one case of the series of fifty-five, as many as twenty-six injections were given before a cure was effected."

When it is not advisable to send the patient to a hospital or have a nurse, I give them written instructions to follow at home and start with about 3 minims of solution to test their tolerance. The results will be the same with small doses but it will take more of them. They can be given in the office and the patient sent home with written instructions, as to bowels, diet, baths, rest, fresh air, irrigation, etcetera.

If the injection causes acute strumitis it is usually due to faulty technic—Antiphlogistine and Libradol are both useful in relieving any swelling.

All pathologic manifestations should receive prompt attention, even a cold in the head or slight indigestion.

During the past thirty years, I have treated many cases of Simple Goiter by giving iodine in some form internally, and driving it through the gland with an electric current and do not recall a single relapse.

I have offered nothing new whatever in this paper, but in these days of rapid strides in "advanced medicine," it is sometimes profitable to bring ourselves back to some old reliable treatment.

It is very much better to restore the function of a thyroid gland than to remove it and this can be done in the majority of cases if treated in time.

SOME POINTS ON THE INTERNAL SECRETIONS IN OBSTETRICS AND GYNECOLOGY

T. C. Young, M.D., Glendale, Cal.

(Read before the California Eclectic Medical Society)

It is impossible not to give consideration to the glands of internal secretion in the study and treatment of obstetrical and gynecological problems. There could not be a science of obstetrics nor a practice of gynecology without the involvement of at least one of the endocrine glands—the ovaries. These glands are the center of obstetrical practice as well as of gynecological practice, and it is absurd to believe that the endocrine aspects of these two important branches of medicine and surgery are of comparative unimportance.

In obstetrics we have made a number of advances in the past few years which involve organotherapy. First of all, we know that the posterior pituitary principle has an oxytocic and utero stimulant effect. Hence, its use in labor and under other circumstances which I do not need to refer to at the present since the subject is so thoroughly handled in hundreds of articles by various writers. We have discovered that the placenta contains within itself a galactagogue hormone, and that it may be used as an exceptionally fine milk stimulant in nursing mothers. It is also the means of antagonizing those conditions which favor vomiting of pregnancy which it seems may be due to anaphylaxis of protein sensitization to certain of the protein products of the newly forming placenta. It is possible to administer placenta substance to those suffering from severe hyperemesis, and thereby to facilitate the production of a tolerance to these placental toxins thereby reducing the vomiting and causing much benefit. Bandler of New York City has discovered a relationship between this principle and the frequency of abortion in certain women, and he now uses placental extract as a means of controlling this unfortunate

tendency and preventing abortion of a functional type, that is abortion not due to any mechanical or anatomical disturbance.

It is difficult not to give consideration to the thyroid gland as an important organ in the female economy, and its importance is by no means limited to its influence upon the general chemistry. It is the regulator of ovarian development as well as its monthly menstrual activity, and therefore the study of the thyroid gland is extremely important, and the treatment of hidden thyroid disorders so necessary in the treatment of all conditions of this type.

One of these concerns the attempt of the thyroid gland vicariously to make up for the ovarian insufficiency which is physiologic during pregnancy. The thyroid gland becomes somewhat enlarged and over-active in the well meant attempt to make up for the ovaries, and as a result of this there is a tendency to dysthyroidism which has to be given consideration in many cases, especially in primiparae.

In gynecology, on the other hand, the thyroid is perhaps equally important with the ovaries. Certainly one-half of all the numerous cases of amenorrhea, asexualism, dysmenorrhea and functional ovarian insufficiencies have an equally well defined thyroid element, and as Oliver Osborn of Yale University has said, the thyroid equally with the ovaries is one of the female organs of reproduction. As a matter of fact, the same thing is true of the pituitary gland for it is well known that pituitary insufficiency, especially of the Froehlich type, brings on the dystrophy which involves asexualism, atrophy of the sex organs and the well known obesity.

The care of considering these commonly associated glandular dystrophies has been emphasized by Harrower who believes in treating them simultaneously instead of giving corpus luteum or ovarian substance alone.

Ovarian irritability with the resulting evidences of pelvic congestion, menorrhagia and sexual irritability are now being treated by administration of mammary substance which is known both physiologically and in clinical medicine to antagonize hyperovarism. One of the most remarkable things that has been developed in the last few years has been the advantage of mammary therapy as a means of controlling flooding, not merely in menstrual, flooding but in the hemorrhages due to uterine fibroids and other more serious uterine conditions. Still another important phase of endeavor along these lines concerns the treatment of sterility by means of modifying a

fundamental endocrine disturbance which may be at the bottom of this condition. It has been determined many times that the thyroid gland is connected with ovarian activity, hence, a sterility cannot be properly studied unless we give consideration to this phase of it. The same thing applies to the pituitary gland and therefore the experimental organo-therapeutic treatment of sterility sometimes accomplishes the desired end more satisfactorily than all of the other methods put together, because if there is an endocrine basis to a given condition, and in place of treatment directed at the disturbed glands we operate upon the patient, or we make changes in the vaginal secretions or flora and ignore the fundamental stimulating factors, we are naturally to fail in our efforts.

Sterility as well as asexualism is intimately associated with amenorrhea, and all three of these conditions are undoubtedly of a character to be modified by organotherapy directed at the thyroid, pituitary and ovaries especially.

A very interesting phase of study which connects the glands of internal secretion with certain nervous diseases may be mentioned. Epilepsy in women or young girls that is associated with disturbed ovarian function sometimes is cured entirely by taking care of the dysovarism. In other words, if an ovarian insufficiency or dysfunction is present and this is treated by means of suitable hygiene, local treatment and organotherapy, the epilepsy which may be dependent quite largely upon this disturbance in the balance between these glands disappears as soon as the disturbance is regulated. Unfortunately, it does not seem possible to determine in advance whether the ovaries element in epilepsy is present or prominent, but experimental organotherapy has many times established the endocrine causation of epilepsy and at the same time has reduced the number or lessened the severity of the attacks, and in some instances has caused a disappearance entirely.

Another important phase of the relation of the glands of internal secretion to gynecology concerns the common influence of infection upon adrenal function. Endometritis, cervicitis and pelvic infections generally as well as, for that matter, any other infection causes an increase in the toxicity of the blood and this stimulates the adrenal glands naturally. This over stimulation sometimes causes high blood pressure due to increased activity of the pressor mechanism of the glands. Later on when the glands have been over stimulated

for some time they play out and the result is hypoadrenia with marked muscular asthenia, circulatory insufficiency, low blood pressure, poor elimination of wastes and general cellular laziness. The number of these patients is 1, and it is impossible to give consideration to the clinical logical aspects of these cases without also considering the fundamental disturbance in the endocrine balance. This explains why adrenal support is a useful adjunct in the treatment of many functional clinicological conditions.

PREGNANCY COMPLICATED WITH TYPHOID FEVER

J. P. Harvill, M.D., Nashville, Tenn.

This subject has more than a passing interest to me, for two reasons, viz., I practiced medicine sixteen years without observing this complication, and the seventeenth year I had two cases which were successfully terminated.

Typhoid fever occurs with greatest relative frequency during the early months of gestation, and it is, indeed, very rare at the puerperium. With the exception of smallpox and cholera, the tendency to interruption of pregnancy is more marked with this disease than any of the infectious diseases. Abortion rather than premature labor is observed. Out of eighty-eight cases collected by Kaminski, interruption of pregnancy took place in sixty-three. One other author reports fourteen out of twenty-four, while still another reports six out of ten. This makes about 65 per cent. of interruptions with these observers.

The abortion or premature labor can be caused by either the extremely high temperatures, from the toxemia or hemorrhagic endometritis. The interruption in the early months of pregnancy is looked upon as being much more favorable; if at or near the puerperium, much less favorable.

Report of Cases

On July 12, 1907, I was called to see Mrs. H., aged nineteen, primipara, and received the following history of her case: She was about eight months advanced in pregnancy, and had taken typhoid fever twelve days previously; she had a severe diarrhea, with bowels distended and tympanitic, carrying a temperature of 102° to 105°; tongue very dry, red and pointed. Patient was sent to the hospital immediately

(this being the twelfth day of the disease). She was made fairly comfortable until the fourteenth day (the second day after she came). About 8 a. m. labor began. She was having pains every forty minutes, which seemed to exhaust her very much. About 2 p. m. the pains were about twenty minutes apart and very effectual. The first stage of labor lasted about six hours. The second stage lasted forty minutes. At the end of the second stage the patient collapsed, temperature falling from 103.6° to 97°. Patient became very cyanotic—almost black over the entire body. One-twentieth grain of strychnine was given and normal salt solution, with other stimulants, and the patient soon rallied. The after-birth being delivered, the patient made an uneventful recovery. The fever broke on the twenty-first day of the disease.

One peculiarity noticed was that the child had all the symptoms of typhoid fever for seven days; bowels distended, with temperature ranging from 100° to 102°. Nothing but the mother's milk was given for nourishment. The child and mother are both living and healthy, after nearly two years.

On January 1, I was called to see Mrs. M., aged twenty-one, multipara. All the prodromal symptoms of typhoid fever were present, and the patient was four and a half months in gestation. On the sixth day the characteristic rash appeared almost all over the body. She had a typical case of typhoid fever, with the exception of being constipated throughout the course of the disease. Three or four times the patient was threatened with miscarriage. Each time this was controlled by giving fifteen drops of black haw every hour. She made a nice recovery, fever leaving on the twenty-eighth day. Patient was readmitted to hospital in May, and gave birth to a child on the 10th. The child seemed in every way a normal, healthy child, and the mother made a nice recovery.

In both these cases echinacea was my antiseptic.

THERAPEUTIC METHODS

Lyman Watkins, M.D., Blanchester, Ohio

There are many therapeutic methods, and it may be conceded that there is more or less virtue in all of them, for they are based upon an innate principle of help for the sick which has prevailed since the beginning of the age. They for the most part consist in taking up some one feature of cure, and, by its elaboration, excluding all others.

Christian Science has its followers and its successes. Generally, those who are benefited have no organic lesion, but are functionally awry in the nervous system, and are those in whom mental beneficial changes can be induced through the influence of other and stronger minds. But Christian Science does not cover all the ground of psychotherapy, for it is not only the Christian who can heal; his antithesis may do as well.

Healing by mental impression is the oldest form of practice known, and in the "most ancient of days" many were cured by supplication to birds, beasts, the heavenly constellations, and to idols.

The underlying principle of psychotherapy is suggestion, and it must be admitted that the mental attitude of the patient, if favorable, will assist in his recovery; his co-operation is of value. However, we must not forget that the patient's confidence is not always necessary. A fracture can be mended or a wound healed whatever be the mental attitude of the patient towards his physician. Faith will not heal a gun-shot wound nor delay its healing. The contagia proceed upon the established course, regardless of mental concepts.

While admitting the influence of the mind upon the body, we must not overlook the fact that bodily conditions have a correspondingly powerful effect upon the mind. A disordered stomach and liver may change the aspect of the world for the patient. A painful corn will distract the brightest intellect, and it is difficult to preserve a calm and retrospective attitude of mind when suffering from acute neuralgia.

Inherited abnormalities and acquired pathological conditions go far to influence mentality. We see this exemplified in individuals with adenoids, nasal defects, dental wrongs and visual aberrations. A correction of these troubles saves many from stupidity or criminality.

It is evident that those who become absorbed in the subject of mental impressions and their influence over the body lose sight of the equally obvious fact that bodily conditions also influence mentality.

Psychotherapy is a great science, and at times works remarkable cures, but its devotees limit their usefulness by ignoring all else in the medical armamentarium, for while we cannot eliminate the psychic element in practice, let us not overestimate.

Electrotherapy has in recent years developed a usefulness beyond expectation, and those who become expert in its manipulation are ready to assert that most human ills can be thus

remedied. There is no doubt but that the electric current, controlled by intelligence, has given amazing results in the scientific world, and it is also quite evident that some forms of bodily derangement can be relieved or cured by the judicious application of this mysterious force. We would not in any way attempt to dampen the enthusiasm of those who make what seems to be extravagant claims in regard to the therapeutic possibilities of electricity, but while granting a full measure of usefulness to this form of healing, we cannot admit that it covers the entire grounds of therapy.

Hydrotherapy, thermotherapy, mechanotherapy, osteopathy, dietetics, and all forms of drugless treatment, have their places. Serotherapy has its triumphs and Fletcher his followers. Time would fail me to discuss all the good points of these various forms of healing. They are all useful at times, and most of them, in one way and another, are taken advantage of by the general practitioner. They are, however, but parts of a complete system of medicine, and neither constitutes the whole. It is characteristic of those who become wedded to any one of these special methods of cure to regard all else as of little moment, and we frequently find that one specialist has no use for the ideas of another working along different lines.

While willing to concede virtue in drugless methods of cure, and being loth to dispense with any of them, yet we can see that a judicious combination of them all will accomplish more than either one alone, and there is really no necessity for conflict between them.

But, however excellent drugless healing may be, we cannot grant that in any or all of its forms it is sufficient for the cure of disease in its entirety. We believe there is also a place for drug therapy in the rectification of pathological conditions. The assertions that drugs are always harmful and never beneficial; that too much medicine is given; that the results of drug-giving are uncertain, largely guesswork and the product of an active imagination, do not coincide with the experience of many qualified men both of the past and present.

There is, however, some truth in all the above statements. That drugs are sometimes harmful, is true. Metchnikoff asserts that no drug was ever given that did not injure cell protoplasm. But cell protoplasm is incessantly being injured and destroyed in the body. Wherever there is function there is cell destruction, and the continued existence of the body depends not so much upon the resistance of cell protoplasm to injury as upon its power to replace that which is destroyed. Cellular death is necessary to somatic life. A dose of castor

oil may destroy cell protoplasm, but the resulting good far overcomes the harm done. The surgeon destroys cell protoplasm very largely at times, but the saving of the patient's life by such destruction justifies the operation. So if drugs do temporarily injure or even destroy cell protoplasm, the benefits accruing more than compensate. Metchnikoff's claims are a myth. He could just as well truly have said that every morsel of food taken into the stomach destroys cell protoplasm.

In regard to the second proposition, we are willing to agree that too much medicine has been given, is being taken. Perhaps too much is administered by physicians, and it is a fact that the public generally takes too much medicine. The fortunes piled up by patent medicine fakers are sufficient evidence of this.

Much of the medical nihilism of today is due to the indiscriminate use of drugs without judgment or reason. The assertion that drug medication is harmful and the results largely imaginary, is no doubt true in many instances. Uncertain and careless medication can never be anything else. We fully understand and sympathize with the physician who leaves his alma mater without a knowledge of drug medication. He is like an infant crying in the dark, lost and helpless in trying situations. This confusion and lack of resource is due to the absence of a therapeutic education, and medical nihilism will prevail until intelligent teaching dissipates it.

In the ranks of those who have been taught therapy in Eclectic schools there is a notable absence of perplexity and uncertainty in regard to drug action. The underlying principle of all science—namely, that, other things being equal, like results follow like causes—is the foundation of specific medication, and, this being true, we have a scientific groundwork that places drug therapeutics upon a solid basis. Uncertainty vanishes and the results are sure, effective and entirely independent of the imagination.

The present confusion in some directions in regard to drug therapeutics need not exist, does not hold, when the matter is fully understood. But study and observation are necessary, and, in addition, reliable remedies are essential. With an understanding of the principles of specific medication and with dependable drugs the study and uses of medicine is a most comfortable occupation, effective and even at times fascinating. What profound satisfaction and elation it gives us to see the forces of disease retire before skilled medication! With what content and confidence we await the recovery of our

patient, and how pleasant the results! It is gratifying to observe the efficacy of our drugs in those racked with pain, in the sufferer shaken with fever and in the depressed and troubled.

The man of medicine goes on his way quietly, without ostentation, carrying comfort and healing with him; easing pain, subduing fever, and saving life, a blessing to his community; willingly giving up his own plans and pleasures and unselfishly devoting his life to his profession. How can it be said of him that he does more harm than good, and that his results are largely imaginary? The good following proper use of remedies cannot be overestimated.

First, let the narrow-minded and self-conceited nihilist excel the general practitioner in cures and good works. Let him sit by the bedside and bring ease to the agonized sufferer. Let him quiet the restless and subdue the raging fever. Let him safely pilot through the breakers his cases of typhoid, of pneumonia, of the contagia. Let him show us thousands of cases restored to health without medicine. Then we will be ready to subscribe to his creed.

To administer remedies aright requires study and discrimination. Once learned, however, we are as secure upon our premises as are those whose trust is based upon any fundamental law. The confidence with which we can approach disease cannot be excelled. We know what to do and how to do it. The very spirit of the undertaking inspires confidence in our patients. Our remedies, with their indications well learned, become instruments of precision in our hands, and we can be as accurate with them as the marksman with his rifle or the workman with his dies. True, there is much to learn, but we have already learned enough to know that nothing can surpass direct medication in the cure of disease; also that indications once learned do not change and can be relied upon. We feel at home with our remedies, do not doubt them, do not fear them, and can accomplish results with them. We have many drugs already established and are adding to them others. This is a large field, and will require years of investigation, but it is a pleasant and profitable pursuit.

The individual who attempts to practice medicine while declaring that medicines are useless and harmful has no right to append M.D. to his name. He is a fraud and is sailing under false colors. He is not a doctor of medicine, and should not attempt to conceal himself under the panoply of the profession. A physician's practice would be limited if it were generally understood that he gave no medicine.

The practice of medicine would be a barren and unproductive field with medicine eliminated. Then let those who decry the efficacy of drugs go their way. Let them turn from the bright and flowery path of medication and wander in the desert of nihilism. But never will the true Eclectic abandon his materia medica for the bleak and inhospitable sands of hopeless agnosticism.

Walk a mile each day to keep the doctor away, advises the United States Public Health Service. Try walking to work every morning and see if it doesn't make you younger and healthier.

Cattle are fattened for slaughter by being overfed and not allowed to exercise. Many men and women prepare themselves for slaughter by voluntarily adopting the "stall fed life," says the United States Public Health Service. Don't overeat and take plenty of healthful, outdoor exercise.

Hot house people are like hot house plants. They can't stand exposure to severe weather, says the United States Public Health Service. Sleep with the windows open and keep every room well ventilated.

This is the scarlet fever season, warns the United States Public Health Service. A clean, sanitary mouth will help to prevent it. Compel the children to brush their teeth regularly and keep the mouth clean.

Beware bootleg liquor, warns the United States Public Health Service, for much of it contains wood alcohol and other poisons. An ordinary swallow of wood alcohol may produce death or blindness. **DON'T RISK IT.**

Every sore throat is a danger signal, says the United States Public Health Service, and may indicate some acute, infectious disease, such as diphtheria or scarlet fever. Take no chances. Have a physician make an immediate examination. A few hours delay may cause death.

THE CALIFORNIA ECLECTIC MEDICAL JOURNAL

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O. C. WELBOURN, A.M., M.D.

Editor

D. MACLEAN, M.D.
Associate Editor

P. M. WELBOURN, A.B., M.D.
Assistant Editor

SPECIAL CONTRIBUTORS:

JOHN URI LLOYD, Phr. M., Cincinnati, Ohio.

J. W. FYFE, M. D., Saugatuck, Conn.

WM. P. BEST, M. D., Indianapolis, Ind.

FINLEY ELLINGWOOD, M. D., Chicago, Ill.

HARVEY W. FELTER, M. D., Cincinnati, Ohio.

J. B. MITCHELL, M. D., San Francisco.

A. F. STEPHENS, M. D., St. Louis, Mo.

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BUBONIC PLAGUE

During the epidemic of bubonic plague in Honolulu the writer had considerable experience with this disease, both in its clinical and prophylactic aspects. Later in the orient a wider field of observation was available. Altogether he learned much that was accurate information; though at that time the cause of the disease and its mode of infection were unknown. It was thought to be closely attached to the victim himself and limited to his place of abode. As a result it was the accepted practice in Honolulu to burn the residence of the plague victim, and first and last a large part of the people were "burned out." In the orient bubonic plague was considered by the natives to be a dispensation of Providence and the praise or blame was ascribed to whatever gods were in use by the particular community afflicted. As the disease rarely attacked Caucasians they were not so vitally interested and gave the matter but casual notice. Probably this indifference would have been manifest in Honolulu also, had it not been that the population was uniformly attacked, regardless of race, color or previous condition of servitude. The oriental is

quite a fatalist by both birth and education and departs this life much more willingly than the occidental. In some measure this is due to the fact that with many life is a great hardship and that it is more pleasant to die from the bubonic plague than it is from starvation. This indifference upon the part of the native, together with religious and social customs which are exceedingly complicated, make it very difficult to enforce efficiently prophylactic measures calculated to suppress the disease. Therefore it seems probable that our efforts will be successful only in so far as we endeavor to protect our own people. From time to time bubonic plague has appeared in the United States, and it so happens that the present is one of those times. Owing to much traveling about of our people sporadic cases of the disease may appear anywhere and it behooves the profession to see to it that the disease does not become epidemic. The following brief resume may not come amiss.

Bubonic plague is an acute infectious fever caused by bacillus pestis. There are two clinical types—the pneumonic and the bubonic. In the former the bacillus is found in the sputum and is transmitted through this agent. In the latter the bacillus is found in the lymphatics and is transmitted through the agency of a flea which has contracted the disease by feeding upon the blood of rodents or human beings who have the disease. The usual origin is through the medium of rats.

Both types of the disease may be found in a mild or virulent form. The mild types are impossible of clinical diagnosis—pneumonic being similar to many other mild respiratory infections and the bubonic being similar to many other mild forms of adenitis. Suspicious cases should have the sputum or fluid aspirated from the bubo examined by a competent bacteriologist. In the virulent type we find an acute septic disease with a very high mortality rate. A glance at the patient shows a grave condition. There may have been a chill, there is certainly a high temperature. The patient is unconscious or delirious. The pneumonic type is obvious—the bubonic type is revealed by an inspection of the lymphatic glands usually the inguinal. In sporadic cases the aid of a bacteriologist is necessary. In an epidemic such support is not needed. No specific treatment is known.

The mortality rate is very high. Isolation of the patients and extinction of rodents and fleas will break an epidemic. This suggests a line of procedure which is difficult to follow and more difficult to enforce. However, in this country it should be possible—for are we not a civilized people?

BLOOD PRESSURE

Any great and permanent deviation from the normal blood pressure is one of nature's signs that something is wrong. It should, however, be borne in mind that such deviations are only a symptom and not a disease—a symptom of an accumulation of certain toxins in the system. The logical method of treatment therefore is an elimination of the causative toxins.

That remedy which fits the totality of the symptoms possessed by the patient is most likely to have a favorable influence upon the blood pressure. A change in blood pressure from the abnormal towards the normal is often among the early symptoms of improvement. Hence the importance of the physician taking the blood pressure on beginning treatment in every chronic case. However, it should be remembered that blood pressure is affected by food, exertion, worry and excitement, and by position of the patient—whether that of standing, sitting, or a recumbent one, and these factors should always be considered when taking the blood pressure. It becomes a valuable guide in estimating the efficacy of his treatment. Not infrequently the patient will report “no improvement noticed,” but a determination of the blood pressure will often reveal that there has been improvement.

Low Blood Pressure

We hear a good deal said about high blood pressure and we would not say that too much consideration was given to it, but we think that not enough attention is given to low blood pressure, which we regard as an index of a subnormal condition, physically and not infrequently mentally.

High Blood Pressure

When considering the subject of high blood pressure, many important elements must enter into our calculations if we hope to reach anything like a definite stage in our reasoning. First of all, the high arterial tension must be regarded as a symptom which has some pathological condition as its causative factor; of itself it is rarely, if ever, the causative factor in producing conditions we find in high blood pressure patients.

The primal cause undoubtedly lies in the blood itself—some existing toxic substance that irritates the vaso-constrictors and induces a contraction of the arterioles, thus requiring the heart to increase its energies to force the blood through the narrowing tubes.

To find the source of these toxins is our first duty, and here we often find our greatest problem. It means a system-

atic search for fecal collections, pus foci, not merely in the teeth and tonsils but in all parts of the body. Too often kidney disease is assumed to be the causative factor, the source of the arterial obstruction, when it is these undefined toxins that are responsible for the diseased kidneys.

Whenever we locate the source of these toxic substances the remedy indicated is Normal Veratrum Viride, in two-drop doses every two hours. This corrective agent not only relaxes vascular tension but stimulates the excretion of toxins by the liver, kidneys and skin.

The fact must not be overlooked that the viscosity of the blood plays an important part in producing high blood pressure. The blood is naturally a viscid fluid, and in proportion to the degree of viscosity it contains the friction upon the walls of the arteries will call for increased vigor in the heart action, so that the blood supply can be carried to all parts of the body. Nature shows her marvelous aptitude to meet conditions by hardening the walls of the arteries and making them less dilatable, in this manner providing less resistance to the necessary propulsion of blood throughout the circulatory system.

Putrefactive and fermentative changes in the intestinal canal often cause increased viscosity of the blood, and excessive smoking is also a well-recognized cause of this condition. Naturally the degree of viscosity should be reduced in order to lessen the work of the heart, and the citrates and citric acid are very efficient remedies to employ for this purpose. Lemon juice is also an excellent means of overcoming excessive viscosity. On the other hand, chloride of sodium (common salt) and the other chlorides increase viscosity and should be used with caution. **The use of Epsom salts to flush the bowels also comes under the ban of condemnation.** Water should be drunk in liberal quantities and a diet of fruits and such vegetables as lettuce and celery advised. Meats should be eaten very sparingly.

The importance of reducing the excessive viscosity of the blood is apparent when we realize the tendency in this condition to block the capillary circulation. Indeed there may be said to be a dual tendency—one to rupture the small and weak-walled vessels by the required increase of the blood pressure, producing apoplexy, and the other to express the aqueous portion of the blood into the tissues, thus laying the foundation for dropsical conditions.

We have endeavored to show that arteriosclerosis is very

often a result of high blood pressure, and not the cause of this condition. It is a part of Nature's plan to keep the body supplied with a sufficient quantity of blood to nourish and sustain the vital functions upon which healthy conditions depend. Normal blood pressure requires arterial walls of only normal rigidity, but when, through excessive viscosity of the blood or other causes, a higher pressure is necessary to maintain the efficiency of the circulatory system, Nature must strengthen the walls of the arteries, thicken and harden them, which she accomplishes through the process of contraction and by the addition of calcareous and other deposits.

The logical method of treatment is to strive for a correction of the original fault, which assuredly lies in the accumulation of certain toxins. To adopt a course of treatment with the sole purpose in view of decreasing the vigorous work of the heart is committing a grave mistake; because whenever we lessen the proper supply of blood needed to maintain complete functional activity in the body, we are inviting disaster, which is sure to result in an utter collapse of the human machine.

Elimination of the caustive toxins, and regulation of the heart action to conform with slowly changing conditions brought about by the treatment, is practically the one safe system of medication. Proper diet is also a useful feature of the treatment, and climatic conditions are not to be overlooked. The dense atmosphere of the valley regions is far better for this class of patients than the dry atmosphere of higher altitudes. The patient should be instructed to drink plenty of water and to avoid, so far as possible, spending too much time in dry, hot, furnace-heated rooms. Too much physical or mental work should be condemned, as it adds a burden upon the heart, but mild exercise is permissible, except in aggravated cases. A good general treatment will be found in the following formula, which represents the dose, to be given every three hours in half a glass of water:

Normal Veratrum Viride	1 minim
Normal Phytolacca	1 minim
Normal Stillingia	2 minims
Normal Echinacea	10 minims

The nitrate of sodium has found favor with a great many physicians in the treatment of high blood pressure, and when combined with certain heart stabilizers yields very efficient service as a means of relieving symptoms.

The use of heart stimulants to drive the heart to greater exertion is to be condemned, and for this reason *Crataegus Oxyacantha*, which is a reliable heart sedative and regulator, is employed, to which is added the stabilizing influence of minute doses of nitro-glycerin—Editorial, North American Journal of Homeopathy.

NEW TREATMENT FOR LEPROSY APPARENTLY SUCCESSFUL

The United States Public Health Service has reports of what appears to be a cure for leprosy, it was announced by Surgeon General Hugh S. Cumming yesterday.

Thus one of the world's most dreaded maladies, regarded as a hopeless and incurable scourge of humanity since early history, would seem to have been conquered by officers of the Public Health Service in the leper colony in the Hawaiian Islands.

For some years the belief has been gaining ground that leprosy could be cured, and encouraging progress was made by several investigators. The starting point for this study was the observation that now and then the course of the disease appeared to be favorably influenced by treatment with chaulmoogra oil. The treatment, however, was attended with many difficulties and could not be carried out in all cases. At this point the Public Health Service enlisted the cooperation of Pro. L. E. Dean, head of the chemical department of the College of Hawaii, and president of that institution, suggesting that attempts be made either to isolate the active constituent of this drug, or to devise means for making its continued administration feasible. The latter has been accomplished by preparing what is known as an "ethyl ester" from the Chaulmoogra oil. The treatment has been carried on at the Leprosy Investigation Station at Kalihi, Hawaii, the work being directed by Dr. J. T. McDonald, director of the station. The results of the treatment thus far have been so satisfactory that lepers come willingly for treatment, a recent inspection by Hawaiian health authorities failing to disclose a single secreted case of leprosy. Following a course of treatment, extending over about a year, 48 lepers, treated according to the new method, were paroled in October, 1919. Up to now they have remained free from disease. At the present time the treatment has been administered only at the receiving station, but it is hoped to provide facilities for the treating also of lepers in the leper colony at Molokai.

Surgeon General Cumming's announcement relates to lepers who have been treated by the new method and have been under observation for a considerable period. Moreover, the decision as to apparent cure has, in the case of each patient, been officially determined, not by officers of the Public Health Service, but by a special parole board, which alone has authority to discharge a patient from custody.

The Public Health Service is now conducting a very careful study of the treatment, making detailed records of all the cases and taking photographs of the lesions once a month. Details concerning the treatment will be published in the near future.

ENURESIS

Bed-wetting is a trying enough condition in the case of the individual child in the home, but in an institution caring for a great many it becomes quite a serious problem when present in a large proportion of the children. Formerly, whether occurring in the home or in an institution, the condition called for disciplinary measures, on the assumption that the child was wholly responsible. At present, however, it is the consensus of opinion that enuresis is entirely a medical problem, not within the individual will of the child to prevent, nor influenced by punitive measures. Even when no definite pathological condition is found to account for the local manifestation, it is apparent that enuresis often accompanies an inferior mental or physical constitution. It is perhaps very common in the precocious but nervous child in whom the degree of mental precocity would seem to rule out wilful bed-wetting. However, the irritability of the nervous system in children of this type causes an undue reaction to any stimulus, and they have little control over any of their functions. Of course, there are tangible local conditions that cause incontinence in the bladder, but these do not constitute the problem of bed-wetting. On the other hand, as a purely local condition but which must cause the great majority of cases of enuresis, anomalies of the foreskin of male children and adhesion of the rudimentary one in female children hold the first place. When this is recognized as the etiological factor, circumcision seems to cure about 80 per cent of these cases. There is now no longer any doubt that circumcision in the male child is a prophylactic measure of greatest importance not only in the prevention of this condition but in the prevention of many bad habits. As a therapeutic measure in many, backward children who display no basis for mental deficiency, it can be

compared with operations for the relief of obstructions to respiration. But although these physical and nervous conditions are the basis for the bed-wetting habit, there are many exciting causes that need attention in order to prevent the attack or as after care in cases having received the active treatment indicated. Any circumstance which encourages relaxation of the sphinctors during sleep encourages bed-wetting. Sleeping in an overheated room, in an overwarm bed, or on or under a feather bed is likely to cause bed-wetting in a child so inclined. Also a child of this type sleeping with an overfilled bladder will soon lose the power of resistance of the compressor muscle, especially since he already has poor control over it. It is for this reason that fluids of any kind must be interdicted to such a child after about 6 o'clock. And it goes without saying that the awakening of the child during the night to empty its bladder will prevent the annoyance of the bed-wetting until such time as the appropriate therapeutics makes this unnecessary. Drugs usually given in this condition seem of doubtful value, except such as are tonics to the entire organism. Unless the medical point of view is accepted in relation to the cause of enuresis, and treatment is instituted accordingly, little improvement can be expected. On the contrary, the punitive measures usually adopted can but aggravate the condition.—N. Y. M. R.

RELIEF TO DISABLED MEN

"Relief to Disabled Men through the United States Public Health Service" is one of a series of pamphlets published by the Office of the Assistant to the Secretary of War, which will be of great interest to medical men generally throughout the country. It gives the Government's position with reference to treatment for former soldiers and sailors who are in need of medical attention because of war injuries or disease contracted in the service.

Under Public Act 326, the United States Public Health Service will furnish relief to any honorably discharged soldier, sailor or marine, or Army or Navy nurse (male or female) who was discharged on or after October 6, 1917, and becomes disabled or ill on account of illness or injury incurred previous to discharge from service, and not due to misconduct.

By applying to the Commanding Officer of an Army hospital, those who come under the act may enter the institution; or by applying to a Public Health Service official, they may enter a Public Health Service hospital. In both cases accepted applicants will have all proper expenses paid, but un-

less authority is obtained from one of these officials, the Government will not pay for medical treatment. Public Health Service hospitals are located in a number of cities throughout the country.

In a bulletin, Lieutenant Colonel Mathew C. Smith, General Staff, in charge of the employment and the general welfare of ex-service men, says:

"Although the welfare bodies and others have been co-operating with the War Department in an effort properly to inform all these persons who are entitled to medical or surgical treatment, many are still unaware of their rights. These men incurred their disabilities while in the service of our country, and it is the intention of the Government that they shall not become wards of the public. The co-operation of all medical men is requested in this matter. Physicians and surgeons are notified that former soldiers or sailors suffering from disabilities resulting from war conditions may be directed to the local Red Cross or United States Public Health Service representative, or to the nearest Army hospital."

If discharge or other papers showing that the disability was existing at the time of separation from service are available, they should be taken along, as they will be of help in making a decision on the case. However, if these papers are not available the man should not hesitate to apply. Such an applicant, if his condition demands it, will be immediately placed under treatment pending the receipt of the necessary papers.

If there is no representative of the Health Service in the ex-service man's home town and no Army hospital at hand, and it is possible for him to travel, such traveling expenses, hospital expenses and wages lost while undergoing examination will be paid by the Government, should it be decided that treatment is necessary.

On the other hand, if the physical condition of the man makes it impossible for him to travel, the Public Health Service will arrange for his examination and treatment at his home. In special cases where it is found that a change of climate will be beneficial patients will be sent by the Public Health Service to specially designated hospitals.

Copies of the pamphlet explaining the law may be secured without charge by any physician on application to the Office of the Assistant to the Secretary of War, Service and Information Branch, Council of National Defense Building, Washington, D. C. It has already been distributed to all Army and Navy hospitals, state and city health officers, and United States Health Service stations.

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:: Original Contributions ::

TINCTURE OF ALFALFA IN OBESITY

J. C. Reinsmidt, M.D., Los Angeles

(Read before the California State Medical Society.)

To reduce superfluous fat about the heart, abdominal regions, etc., in obesity cases I have found the use of Alfalfa most efficacious.

From careful observations during over three years' experience with it, I feel justified in saying that its administration in obesity cases can be handled with a great deal of success.

In most cases there has been no rapid or marked decrease in weight but more often a reduction of the waist and chest measurements with a noticeable toning up of the whole system and hardening of the tissues.

I will give a brief history of a few cases I have treated, to illustrate the effect produced on various people.

Case No. 1. Mrs. C., age 43, weight 184. No hereditary tendency. Fatty condition mostly about abdomen, with pressure on heart and adjacent organs. Waist measure 35 in., chest 38, height 5 ft., 8 in. Began treatment April 10, 1918. On April 20, 1918 weight was 179, waist 34, chest 36. On May 6, 1918, weight was 175, waist 33, chest 35. This reduction continued until June 28, 1919, when she quit taking the treatment as she then weighed 154 lbs., waist 30 in., chest 33. There was marked improvement in her breathing and less heart palpitation. She is still a patient of mine, off and on, but has never gained in flesh since her reduction under the Alfalfa treatment.

Case No. 2. Mrs. J., age 28, weight 232 lbs., height 5 ft., 6½ in. Had not menstruated for one year. Began treatment Sept. 9, 1916. Chest 40 in., waist 37, hip 50. Oct. 3rd, chest

38, waist 35, hip 48. Nov. 8, chest 37, waist $32\frac{1}{2}$, hip 47. The first month's use of the alfalfa caused the menstruation to reappear and her health began to improve so she was able to resume all her household duties.

Case No. 3. Mrs. P., age 42, height 5 ft., $4\frac{1}{2}$ in., weight 262 lbs. Began treatment July 24, 1917. Chest 44, waist 44, hip 60. Aug. 19, chest $40\frac{1}{2}$, waist 40, hip 57. Sept. 4, chest 39, waist 40, hip 56. Oct. 16, chest 39, waist 38, hip 52. When patient began treatment she was unable to do such housework as sweeping or laundry work. The least exertion would cause extreme shortness of breath. After the first month's treatment she was able to go about her work with more strength and very little effort and later on could accomplish it very easily.

The R/

Cascara Evac. P. D. & Co., 3 ij

Tr. Alfalfa (Barnes) qs. oz iv

Sig. Teaspoonful before meals and at bedtime.

The cascara gives flavor to the medicine as well as having slight laxative effects.

I have treated more than thirty cases besides these I have mentioned and in everyone I have been successful with them to such a degree that I have been prompted to write this article and so "pass it along."

THE MUNK LIBRARY OF ARIZONIANA*

J. A. Munk, M.D., Los Angeles, Calif.

In 1884 I began collecting books on Arizona and have been engaged in the work ever since. The plan for gathering a library was not premeditated but purely accidental, and was due to my taking a vacation and visiting a cattle ranch in which I became interested. This ranch was located in Railroad Pass in the mountainous region of southeastern Arizona. It is in the heart of the rugged Apache country, which region at that time was full of action and excitement. Hostile Indians were out on the warpath and the military was busy running them down. Everything was new and strange, and I was greatly fascinated; and to breathe the soft balmy air, laden with the sweet fragrance of a variety of delicate desert perfumes, added much to the joy of living.

* The historical data contained in this article was compiled by the librarian, Miss Adelaide Chamberlin.

The trip furnished the opportunity to see more of the far West, which had been my dream from childhood. Stories of the woods and the wilderness, of wild animals and wilder Indians always attracted me and I was eager to see for myself the things of which I had read.

After seeing Arizona I found it so interesting that I was consumed with curiosity to learn more about the country. When I returned home I immediately began to acquire all the books that I could find describing it. My one surprise now is that, after having made the start with no definite purpose in view, I should have continued without pause during the past thirty-five years collecting Arizona books. This has resulted in the assembling of a unique library.

The Southwest has the oldest white civilization in America, which already had a culture of its own when the white man first found it. The country was sparsely populated by tribes of sedentary Indians who lived in pueblos and followed farming. They were a peace loving people and disinclined to wage aggressive warfare, but were valiant defenders of their homes.

Geographically and historically Arizona is the center of the great Southwest which embraces much additional territory and especially includes New Mexico and Sonora. These three adjoining states are all of one piece and are intimately related. Realizing this fact caused me to broaden my field of inquiry to include all books on the Southwest. Books that treat of Arizona often overlap into adjacent territory like New Mexico, Northern Mexico, California, Utah and Colorado; and all such books deserve a place in the library, and are accordingly being added to the collection.

The many valuable resources and attractive scenery of the Southwest, together with its early discovery and occupation by the Spaniards, makes it an important storehouse of historical lore, that has caused it to be more written about than any other portion of the United States. It is the purpose of the library to gather all of this source material that can be found and make it available for students and scholars for the benefit of mankind.

Original copies of first editions of early books, or books with costly bindings, are of course desirable, but these qualities are not particularly sought. They are purchased without regard to the character of their make-up, provided they furnish the information desired by giving a full and accurate account of the subject discussed. The books which have accumulated are printed in several languages, English, Spanish, French,

German and Dutch, but are mostly in English. Some of them have been translated into different languages and issued in two or more editions, all of which have a place in the library.

The recorded history of the Southwest extends back nearly to pre-Columbian days and prior to Coronado's great march, to an expedition that was sent out from Spain in 1527 under Panfilo de Narvaez to conquer the province of Florida. This seems like a far cry from Arizona, but is the real origin of its history and the basis of our literature.

The Spanish flotilla of five ships with about six hundred souls on board reached the Florida coast nearly one year later, where three hundred men were landed and marched inland to explore the country. The ships were ordered to follow along the shore to an agreed rendezvous at a harbor called Panuco. After some time of fruitless wandering and great hardships the reconnaissance party returned to the coast but found no harbor or vessels waiting there. In their almost helpless condition they contrived to piece together five barges in which they embarked on the twenty-second of September, 1528, to find the missing ships. The boats were soon separated and destroyed by terrific storms. Two of the barges were driven on shore and the men who reached land were made captives by the Indians.

After six years of captivity the four survivors, namely, Alvar Nunez Cabenza de Vaca, Andres Dorantes, Alonzo del Castillo Maldonado and an Arab Moor, Estevanico, sometimes called the negro, managed to escape from the Indians, and then, under the leadership of Cabeza de Vaca, started afoot on their long overland journey to Mexico. They soon developed into medicine men and, on account of their honored profession, were well treated by the Indians whom they met. This isolated band of intrepid adventurers traveled through the then unknown country of Texas, New Mexico, Arizona and Sonora to Sinaloa on the Gulf of California, but their exact route is not known. They succeeded in reaching Culiacan alive and related their experience to Melchoir Diaz, chief alcalde of the province, who received them kindly.

They told him what they had heard about a strange people living in cities made of stone houses and containing much wealth, which so excited the cupidity of the Spaniards that they immediately resolved to raise an army and go in search of the treasure.

At the suggestion of Coronado, the viceroy of New Spain, Antonio de Mendoza, sent Fray Marcos de Niza to the north to ascertain the truth about Cabeza de Vaca's report. He left

Culiacan March 7, 1539, accompanied by Estevanico and some Indians. After a time he sent Estevanico ahead with orders to send back accounts of what he saw.

Soon emissaries came back telling of Cibola, and Niza followed day by day in the footsteps of his scout. Early in May news was brought that Estevan had reached Cibola and tried to enter against the wishes of the inhabitants, who had then killed him. Niza advanced until he could see Cibola in the distance, when he took formal possession in the name of the King of Spain and returned by hurried marches, reaching Mexico City in September, 1539.

Francisco Vasquez de Coronado organized his expedition as a result of Niza's accounts and left Compostela, New Galicia, February 23, 1540. At Culiacan Coronado reorganized his company and then started north with his army of freebooters into the unbroken wilderness.

He reached Cibola in July, 1540. A party was sent from here towards the northwest, which discovered the Hopi villages. Thereafter another party was sent in the same direction under Pedro de Tovar and one of his men, Garcia Lopez de Cardenas, with about twelve companions, first saw the Grand Canyon. Traveling eastward from Cibola, winter headquarters for the main army were made at Tiguex near the present Albuquerque.

On April 23, 1541, the whole army started for Quivera, led by the Indian guide called the Turk. After weary marches Quivera was found to be a village of Wichita Indian tepees not far from Great Bend on the Arkansas River. Finding nothing of value Coronado journeyed back to Mexico by way of Cibola in the spring of 1542.

Hernando de Alarcon was the first to navigate the Colorado River. He was sent in command of several ships to explore the northwest coast of Mexico, at the same time that Coronado went in search of Cibola, which was supposed to be on or near a large body of water. He started from Acapulco May 9, 1540, and followed the shore until he reached the mouth of the Colorado River. His sailing vessels were unable to proceed, so with twenty men and two small boats he started up stream August 29, 1540. After a journey of over fifteen days they returned to the ships, having heard from the Indians that Coronado had reached Cibola.

In the following month, with replenished supplies, Alarcon made a second up-river journey. This time he went as far as the beginning of the Grand Canyon, where he left letters buried under a tree in a sealed jar, telling how he was unable

to proceed and having waited many days for news from Coronado had returned to New Spain, explaining that the Gulf of California was a bay and not a strait as had been supposed. These letters were found by Melchoir Diaz, whom Coronado had sent westward from Corazones with a small party to find the ships. Diaz crossed the river and finding only a desert beyond, turned back to Corazones, but died on the way there.

Fray Augustin Rodriguez, accompanied by two priests and eighteen men, set out from San Bartolome, Chihuahua, June 6, 1581, for the land which they named New Mexico, and founded the first mission at Puaray. The soldiers under their captain, Francisco Sanchez Chamuscado, searched for gold and discovered the first silver mines. They refused to go farther with Rodriguez and his two companions and returned to Mexico City in May of the following year. Rodriguez and the two priests remained at Puaray, where they were all killed by the Indians.

Late in 1582 Antonio de Espejo started from Santa Barbara, Chihuahua, with a small party financed by himself, to go in search of Rodriguez and the two priests, of whose desertion by the soldiers of their party he had heard. When his expedition had passed Isleta he learned of their murder. Then Espejo decided to make some brief expeditions before returning to Mexico. With two men he for two days traveled east to the buffalo country. Then he went up the Rio Grande and westerly with his whole command as far as Zuni. From here Espejo with nine men traveled as far west as the Hopi villages. He estimated their population as 5,000, which was probably an overestimate. The expedition returned by way of the Pecos River through Texas, reaching Santa Barbara, September 20, 1583.

With about one hundred and thirty soldiers, ten Franciscan friars and a number of colonizing families, Juan de Onate started from San Bartolome, January 20, 1598, for New Mexico. He crossed the Rio Grande below El Paso in May and formally declared New Mexico to be a part of the Spanish Kingdom. Moving up the Rio Grande to near its junction with the Chama, he founded the town of San Gabriel de los Espanoles, the second oldest town in the United States, in the fall of 1598. He traveled to Acoma where he put down a revolt. In 1605 Onate founded Santa Fe. In 1608 he was superseded by Pedro de Peralta, the second governor of New Mexico.

In 1621 the Franciscan missions, which claimed 16,000 Indian converts, were organized as the Custodia of the Con-

version of Saint Paul, and Alonzo Benavides came as the first custodio, with twenty-seven friars. He was a tireless worker and made a lengthy report as to the people and provinces of New Mexico in 1626, when he was recalled to Mexico. This report was transmitted by the commissary-general of the Franciscans in Mexico to King Phillip IV and printed in Madrid in 1630.

As the result of ever increasing oppression of the Indians by the Spaniards, on August 10, 1680, following the plan of a pueblo Indian named Pope, the pueblo towns revolted and about 400 Spaniards were massacred in the outlying pueblos. At Santa Fe, which had been made the capital of New Mexico in 1605, nearly 2,000 people, including 155 soldiers, assembled to resist the attack of the Indians. On August 19 the Spaniards made a sortie and captured forty-seven Indians who were executed on the plaza. The next day, however, they were forced to evacuate the town, and this the Indians allowed them to do, following them for seventy miles to be assured that they were really leaving the country. The refugees made winter quarters about thirty miles north of El Paso at San Lorenzo, from which point most of them later made their way to the settlements in Chihuahua. Twenty-one Franciscans are said to have been killed and all evidence of their enforced religion destroyed.

In 1681 Antonio de Otermin, then governor of New Mexico, organized an unsuccessful attempt to regain with a force of about 200 soldiers the country from which he had been forced to retreat the year before. From this time on until 1692 the various governors made a series of expeditions against the pueblos but did not succeed in a permanent occupation. Pope retained supreme authority over the Indians until he died in 1688.

August 21, 1692, Diego de Vargas, appointed by the viceroy of New Spain to the task of reconquering New Mexico, left El Paso with 200 soldiers and 100 friendly Indians. He reached Santa Fe in twenty-three days and was able to enter the city peaceably, promising pardon to all who gave allegiance to Church and King. This he did at all the pueblos and then went back to El Paso to collect the people who were to recolonize the country. Not until October 13, 1693, did this large company start for New Mexico, and when they arrived at Santa Fe in December their occupation of the city was opposed. A fierce battle was fought in which the Spaniards were at last victorious. Sporadic hostilities continued for over

two years more in the pueblo country, but in 1696 the reconquest was complete.

In 1696 De Vargas was succeeded as governor by Pedro Rodriguez Cubero who held him a prisoner under charges in Santa Fe until July, 1700, when he left for Mexico to seek redress. The King, appreciating his services, reappointed him as governor and in 1703 he returned to Santa Fe. April 14, 1704, he was killed in a foray against the Navajos.

Padre Kino, an Austrian by birth, was sent from Mexico in 1687 to work among the tribes of Pimeria Alta. In this year he established the mission of Nuestra Senora de los Dolores, about 100 miles south of Tucson. This mission was his headquarters for twenty-four years of exploration and work. From this base he established a number of missions in the valleys of the Magdalena and Altar; crossed the Sonora line and founded San Xavier del Bac in 1700 and within the next two years Guevavi and Tumacacori; several times explored the Gila River; twice he descended the Colorado River below the mouth of the Gila, once crossing into California and once reaching the Gulf in an attempt to prove whether California was an island or a peninsula.

Kino died in 1711 and for more than twenty years no Spaniard is known to have entered Arizona. A tireless worker and traveler, Kino is said to have baptized more than 48,000 Indians, but he left no very permanent results, although twenty-nine missions and seventy-three Indian pueblos were founded in what is now Sonora and Arizona by him and his missionaries. Padre Juan Maria de Salvatierra was intimately associated with Kino in this work which was carried on by the Jesuits.

After the expulsion of the Jesuits in 1767, fourteen Franciscan missionaries were sent from Mexico to take their places, at the request of the Marquis de Croix. Among them was Padre Francisco Garces who was assigned to San Xavier del Bac, arriving there June 30, 1768. From here he made extensive pilgrimages. In 1769 he entered the Apache country and observed various nations. In 1771 he went to prepare the Indians for the future founding of missions and in visiting the Yumas followed the Colorado River to the sea. He went with Captain Anza on both of his expeditions to California and afterwards started north from Yuma and traveled as far east as the Hopi villages, returning to San Xavier September 17, 1776. In August, 1779, he was ordered to go to the Colorado River, where at the mission of Puerto de la Purisima Concep-

cion, the site of Yuma, he was killed by the Indians on July 19, 1781.

Juan Bautista de Anza was born at Fronteras in 1735 and entered the army in 1753, taking part in many campaigns against the various hostile Indian tribes. Later he commanded two memorable expeditions. On January 8, 1774, he left Tubac with thirty-four men including Padres Garces and Diaz, for the purpose of finding a suitable road from Sonora to Alta California, for the use of future colonists. On March twenty-second he reached San Gabriel, California, having proved the existence of a practical route, and made this difficult march without losing a man. Diaz and Garces were really the chief guides, Diaz having made the same journey three years before. From here he went to Monterey and from there returned to San Gabriel and Tubac.

Anza's second expedition was organized at San Miguel de Horcasitas, Sonora, September 29, 1775. Pedro Font, then in charge of the mission San Jose de los Pimas, was detailed as spiritual adviser. Padre Garces and Padre Tomas Eixarch were directed to accompany the expedition as far as the Colorado. They all started from Tubac October 22, 1775. In the party were 240 persons, including the families of the colonists, soldiers and some Indians, with 1,000 domestic animals. Garces and Eixarch remained with the Yumas on the Colorado while the main expedition went on and reached San Gabriel in January, 1776. With an advance party including Padre Font, Anza went north along the coast and on March twenty-eighth founded San Francisco, turned over the colonists to Lieut. Moraga, and with Font and a considerable force started back. Padre Font is remembered particularly for the numerous well-drawn maps he made while traveling.

In June, 1775, Padre Silvestre Velez de Escalante, a New Mexican Franciscan father, spent eight days in the Hopi towns, trying to learn of a road from Santa Fe to Monterey by the regions of the north. His report influenced the governor of New Mexico, Pedro Fermin de Mendinueta to assist the Franciscans in an attempt to discover such a passage the following year. With an escort of nine soldiers, Padre Escalante and Padre Francisco Atanacio Dominguez set out from Santa Fe July 9, 1776. Traveling in a northwesterly direction they reached northern Utah, discovering a large lake which they named Lago Salado (Salt Lake), a name it bears to this day. They returned by a circuitous route through Arizona, crossing the Colorado River by swimming, near the site of Yuma, visiting the Hopis and Zunis and reaching Santa Fe January 2, 1777.

This rather lengthy reference to the early history of the Southwest is given to show how extensive were the activities of the Spaniards in settling New Mexico and the Arizona region, all of which happened prior to the year 1800.

Original old books of Arizoniana are of course few and hard to find; and even some of the more recent ones have become very scarce. Among the rarer items in the Munk library is De Torquemada's "Monarchia Indiana," published in Madrid in 1723. The work consists of three large quarto volumes bound in vellum, each containing an elaborately engraved title page. Other books of an early date are De Benavides "Requete Remonstrative au Roy d' Espagne sur la Conversion du Nouveau Mexico," Bruxelles, 1631. This book is a translation from the original Spanish copy published in Madrid in 1630. Heylen's "Cosmographie, Containing the Chorographie and History of the Whole World," London, 1677; Herman Moll's "Complete Geographer," London, 1709; De Herrera's "History of the Vast Continent and Islands of America" is an English edition, translated by John Stevens and printed in London in six volumes handsomely bound in calf, in 1725. Miguel Venegas' "History of California" includes Arizona, with maps and illustrations, 2 vols., London, 1759; De Page's "Voyages autour du Monde," 3 vols., Berne, Switzerland, 1783; Alcedo's "Diccionario Geografico-Historico," 5 vols., Madrid, 1786; Raynal's "History of the East and West Indies," 8 vols., London, 1788; De Humboldt's "Nouvelle Espagne," 5 vols., Paris, 1811; and another four-volume English edition issued in the same year; and Malte-Brun's "Universal Geography," 6 vols., Philadelphia, 1827.

Until the middle of the nineteenth century, Arizona was a part of New Mexico and the history of one is the history of both. Soon after the year 1800 American adventurers began to drift into Mexican territory in the capacity of explorers, trappers and traders and it was not long until a considerable trade was established between the two nations. Santa Fe, being the nearest town to the American outposts and the largest city in New Mexico, was the goal and the magnet which drew all wanderers through the western wilds to its gates.

William Morrison of Illinois was the man who started the Santa Fe trade in 1804 by sending Baptiste La Lande, a French Creole, there with a small assignment of goods. Attracted by the country, La Lande sold the goods, appropriated the money to his own use and remained in Santa Fe. James Purcell of Kentucky was the second arrival in 1805.

He was driven into Santa Fe by the Indians and his trapping expedition wrecked.

Glowing accounts of the marvelous richness of the west soon traveled east, which started a hegira of new adventurers towards the mountains. As a result of the spreading of these stories, the government sent out its first exploring expedition under Lieut. Zebulon Pike in 1806. His instructions were to examine the country that was tributary to the Arkansas and Red Rivers, and to establish friendly relations with the Indian tribes living there. From that time on emigration flowed rapidly into the west and new enterprises were started. Various expeditions, both public and private, were sent into the country to investigate its resources which now attracted general attention.

Among the notable men of the early days were Sylvester and James Pattie, father and son, from Kentucky, who left Saint Louis with a trading caravan in the summer of 1824, headed for Santa Fe. There they obtained permission from the Spanish governor to trap for beaver on the Gila River. They spent five months in this occupation and were very successful but the Indians stole all their furs. For a time they worked the Santa Rita copper mines, but were forced to abandon them in the spring of 1827. They again engaged in trapping on the Gila, following the stream down to its confluence with the Colorado and from thence to the Gulf of California, hoping to find a settlement there. Finding none, they struggled through Lower California to San Diego, where they were made prisoners, and the elder Pattie died in his cell. James, the son, was finally released and succeeded in making his way by land through Mexico to Vera Cruz, and then by water to New Orleans and Cincinnati. He reached his old Kentucky home worn and penniless after enduring six years of great perils and hardships.

Captain Jedediah Smith was the first white man to enter Arizona from the north. In August, 1826, he started with sixteen men from Salt Lake and traveled to the Virgin River in Arizona, not far from its junction with the Colorado, near the southwestern corner of Utah. In 1830 Smith and his two partners sold out their northern fur company and entered the Santa Fe trade. On a trip from Saint Louis to Santa Fe he separated from his companions in search of water and was killed by a band of Comanche Indians on the banks of the Cimarron.

Kit Carson, the most noted scout and guide of his time, had his first Indian fight with Apaches on the Salt River in

Arizona in 1827. He married a Mexican woman and lived at Taos, New Mexico. He was guide for Col. Fremont and dispatch bearer from California for the government through the badly infested Indian country, where he did valiant service for the people.

Col. John C. Fremont, called the Pathfinder, made four expeditions through the mountains of the west during the forties and took an active part in the conquest of California. In 1849 he crossed Arizona by the Gila River route on his way to California, where he lived for a time on a ranch. He was appointed governor of Arizona in 1878, but never saw active service.

Among the more recent books dating from and after the Mexican War and published in Washington, D. C., are Lieut. Emory's "Notes of a Military Reconnaissance," 1848, and "Report on the United States and Mexican Boundary Survey," 3 vols., 1857; the "Pacific Railroad Reports," contained in thirteen large quarto volumes and published during the fifties; "Wheeler's Geographical Surveys West of the 100th Meridian," 7 vols., conducted during the seventies; Annual Reports of the Secretary of the Interior, Commissioner of Indian Affairs and of the Indian Military Service, Smithsonian Institution, Bureau of Ethnology, Geology, Agriculture, Irrigation and Reclamation, furnish a mass of information that is valuable historically. The numerous monographs on the Zuni and Hopi ceremonies and of pueblo and cliff dwelling ruins by Dr. Fewkes also belong to this group. Carl Buschmann's and Buckingham Smith's Indian philological studies; and the vocabulary and dictionary of the Navajo language by the Franciscan fathers at Saint Michaels, Arizona, are likewise important documents.

Other books of merit are Ward's "Mexico," 2 vols., London, 1827; Hardy's "Travels in the Interior of Mexico," London, 1829; Pattie's "Narrative," Cincinnati, 1833; Kendall's "Texan Santa Fe Expedition," 2 vols., New York, 1844; Gregg's "Commerce of the Prairies," 2 vols., New York, 1844; Hughe's "Doniphan's Expedition," Cincinnati, 1847; Bartlett's "Personal Narrative," 2 vols., New York, 1854; Stratton's "Captivity of the Oatman Girls," San Francisco, 1857; Cremony's "Life among the Apaches," . F., 1868; Brown's "Adventures in the Apache Country," San Francisco, 1869; Davis' "Spanish Conquest of New Mexico," Doylestown, 1869; Pumphelly's "Across America and Asia," New York, 1871; Peter's "Life of Kit Carson," Hartford, 1873; Hinton's "Handbook of Arizona," San Francisco, 1878; Tyler's "History of the Mor-

mon Battalion," Salt Lake, 1881; Bancroft's "History of Arizona and New Mexico," San Francisco, 1890; Bourke's "On the Border with Crook," New York, 1891; Bandelier's "Gilded Man," New York, 1893; Lummis' "Spanish Pioneers," Chicago, 1893; Wright's "Indians Taxed and Not Taxed," Washington, 1894; Coues "On the Trail of a Spanish Pioneer," New York, 1900; Chittenden's "American Fur Trade," 3 vols., New York, 1902; Winship's "Journey of Coronado," New York, 1904; Twitchell's "Leading Facts of New Mexican History," 2 vols., Cedar Rapids, 1911; Read's "History of New Mexico," Santa Fe, 1912; Prince's "History of New Mexico," Cedar Rapids, 1912; Reagan's "Don Diego," New York, 1914; McClintock's "History of Arizona," 3 vols., Chicago, 1916; Gregory's "Navajo Country," Washington, 1916; Dale's "Ashley-Smith Explorations," Cleveland, 1918; Bolton's "Kino's Historical Memoir of Pimeria Alta," Cleveland, 1919, et cetera.

Perhaps the rarest of modern items is "Reid's Tramp, A Journal of Incidents During Ten Months' Travel Through Texas, New Mexico, Arizona, Sonora and California," Selma, Ala., 1858. It is claimed that there are only four copies of this book in existence, the bulk of the edition having been destroyed by the Civil War upheaval. The author was First-Lieutenant of Col. Crabb's auxiliary filibustering expedition in Sonora and was one of the few men that escaped the general massacre.

The library now contains fully 15,000 volumes and new books are being added whenever an opportunity offers. The books are shelved in a room of the Caracol tower of the Southwest Museum which is thirty feet square and eighteen feet high. The room is surrounded by a gallery that doubles its shelf space.

Arizona has never been my residence, but I have made one or more trips into the state every year during the past thirty-five years. On most of those trips I carried a camera and took many pictures of places I saw and people I met. These pictures tell a story of their own of scenes that are rapidly disappearing and will very soon be only a memory. Two thousand of these pictures have been arranged in an album of ten volumes of two hundred pictures each, which are also the property of the Museum. These pictures cannot be duplicated and show how local conditions have been changed during recent years by the onward march of progress.

THE CALIFORNIA ECLECTIC MEDICAL JOURNAL

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C. O. WELBOURN, A.M., M.D.

Editor

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Assistant Editor

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J. W. FYFE, M. D., Saugatuck, Conn.

WM. P. BEST, M. D., Indianapolis, Ind.

FINLEY ELLINGWOOD, M. D., Chicago, Ill.

HARVEY W. FELTER, M. D., Cincinnati, Ohio.

J. B. MITCHELL, M. D., San Francisco.

A. F. STEPHENS, M. D., St. Louis, Mo.

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THE EMUNCTORIES

It would appear that in the beginning of the practice of medicine the alimentary tract was given due consideration. Thus, the early writings are replete with observations upon the action in health and in disease of the "primae viae." And, even at the present time this combination will not permit itself to be forgotten or abused, for long. Probably the reader will agree with us that there is but little danger of the patient forgetting to put food into him—it is what said food does to him afterwards. There is a great deal of truth in the adage, "he dug his grave with his teeth." They will do it, you know!

Try as hard as he may the doctor usually has but little control over what a patient eats. Thus it has developed that he devotes his energy largely to protecting the patient from the consequences of his own intemperance. Mending rather than preventing is our chief occupation. Much of the so-called food is not food at all in the physiological sense, and the remainder is but an approximation to the real thing. However, all that goes in must come out, and such parts as can not be assimilated and converted into energy are in fact so much refuse serving no purpose except to clog up the machinery. The removal of such "by-products" together with the natural waste of the body is the object and function of the emunctories. And the observer frequently will be amazed at the fairly successful manner in which one or all of the emunctories

in a certain patient have carried an overload for years. Also he will be gratified by the way they will respond to a treatment which is encouraging but not drastic. Frequently in a few weeks such a patient can be made a new man. We are quite aware that it is no longer considered to be good style to use the word, "alterative," but it is "good treatment" nevertheless. Should the reader be a doubting Thomas let him carefully select a vegetable alterative in accordance with the methods of the "eclectic fathers" and prove its value for himself. By such means many patients with complicated chronic diseases are greatly benefitted. Not only does the patient return for more, but he brings his friends with him.

FINLEY ELLINGWOOD, M.D.

Dr. Finley Ellingwood was born at Manchester, Indiana, September 12, 1852 and died in Pasadena, California, June 21, 1920, sixty-eight years old.

He graduated from the Bennett Medical College, Chicago, in 1878 and practiced medicine successively in Braidwood, Chicago, and Evanston, Illinois, the latter city being his home during the past twenty-eight years.

He was professor of chemistry in the Bennett Medical College for six years, after which he taught *Materia Medica* and *Therapeutics* for seven years, or until the school was discontinued. During his active years of teaching he wrote several medical books, as follows: *Synopsis of Medical Chemistry*, 1889; *Manual of Urinalysis*, 1891; *Materia Medica and Therapeutics*, 1899, which was rewritten and issued in a second edition in 1915; *Practice of Medicine*, 1910; and *Pregnancy and Labor* in 1912. He also was editor of the *Chicago Medical Times* during twelve years, and of *Ellingswood's Therapist* since 1906.

He was secretary of the National Eclectic Medical Association from 1902 to 1907 and elected President of that body in 1918. His continued close application to business finally broke his health when he decided that he needed a change and rest. He came to California hoping thereby to improve his condition, but it was too late to do him any good. He was in the Westlake Hospital in Los Angeles under observation and treatment for some time, but, on his own request, was removed to his son's home in Pasadena where he died. His ailment was Bright's Disease which steadily sapped his vitality, and ended in the usual fatal comatose sleep.

He was one of the bright lights of Eclecticism, and his passing away is a distinct loss to Eclectic medicine. (Munk)

CHEILITIS EXFOLIATIVA

Douglass W. Montgomery, M.D., San Francisco

Cheilitis exfoliativa is a scaly condition of the lips. It is a manifestation of seborrheic dermatitis, and one of the most obstinate of them. In lighter grades it is not infrequent and may pass unnoticed by the patient. It may, however, be most tantalizing. It sometimes consists of a line of small slightly depressed facets strung along the red of the lip about a millimeter internal to the mucocutaneous border in the line of the opening of the sebaceous glands which lubricate the lips. The following report is a good example of a more than ordinarily severe case of this condition.

Report of Case

History—A Scotch woman, a seamstress, aged 36, consulted me March 17, 1917, for an affection on the red of the upper lip which had been troubling her for the past seven years.

There was no history of tuberculosis in the family; the father died of valvular disease of the heart, the mother of pneumonia. A sister was living and well, and there were no other immediate relatives.

Examination.—A continuous, thick, translucent epithelial plate, like dried collodion, detached itself about every five days from a long, irregularly bordered, sunken surface, which occupied the middle two-thirds of the red of the upper lip. On turning the lip out, yellow miliary bodies could be seen scattered along the upper or anterior edge of this affected area. The whole upper lip was too prominent and had consequently a snoutlike look so frequently seen in infiltrations in this area. In addition to the deformity, the desquamation of the epithelial flake had become most tormenting as the patient was continually trying to loosen it with the lip and tongue. The patient also feared the condition might become malignant.

Besides the affection of the lip, the patient had long suffered from psoriasis, but not of a severe type. She had twice had alopecia areata. It is difficult to say if the psoriasis bore any relationship to the labial affection. For those who consider psoriasis and possibly alopecia areata as seborrheids, a connection would be assumed.

Constitutionally the patient was not in good condition. She had a heavily coated tongue, a tainted breath, a splashing, dilated stomach, and like most seamstresses, she suffered from constipation. She was anemic—her hemoglobin registered 76 per cent. on the Dare instrument. Her complexion was bad. She had a dirty yellow discoloration about the mouth, and her gums were pale.

Treatment and Results

Previous to consulting me she had abundant and energetic treatment of the lip with caustics, roentgen rays and CO₂ snow but without any amelioration.

March 30, 1917, a radium plaque the size of a 10-cent piece, but containing a heavy charge of radium—24.23 mg.—screened with 0.01 mm. aluminum, was applied for ten minutes. In a few days this caused a reaction on the mucous membrane posterior to the diseased patch—the patch itself with its thick covering was evidently very resistant.

Eight days afterward a 25 mg. radium capsule, shielded with 0.35 mm. silver and 0.75 mm. brass, was laid along the lesion over the crust for ten minutes. This in three days brought on a violent radium reaction with swelling of the lip. By the middle of May this reaction had subsided, and this was the first time in seven years that the center of the lip had stopped peeling. The center was now soft and smooth and the infiltration had disappeared. Both ends of the lesion and a fine line along the posterior edge in the center were still desquamating a little.

June 16, 1917, a radium plaque, 11 mg. strength, screened with 0.05 mm. aluminum, was applied for twenty minutes, and again, screened with 0.10 mm. aluminum, for fifteen minutes. A similar application was made, Sept. 8, 1917. By Nov. 17, 1917, there was still a brown, dry linear crust at the junction of the exposed red of the upper lip and the moist mucous membrane of the mouth. By Dec. 29, 1917, there were two minute, loosely adherent, linear crusts at the right extremity of the original lesion. This was cleared off by lightly wiping with trichloracetic acid. The whole lip was soft and flexible, and the great prominence and rolled out appearance of the upper lip had disappeared.

Comment

I do not believe this trouble could have been cleared up with any other treatment than radium, and it required a good dose of this remedy to obtain results. Roentgen rays, the nearest approach to radium, had already been tried by a competent man without effect.

In regard to penetration, there is no doubt that the gamma rays of radium are much more powerful than roentgen rays, and probably penetrative ability was of determining influence in the present case. It will be remembered that the first radium plaque applied was a very strong one, but it had no appreciable effect on the heavily crusted part of the lesion. It affected only the thin mucous membrane behind the lesion. The next application was a 25 mg. tube laid along the crust.

This, together with a remaining effect of the former plaque, gave rise to a violent reaction. After the subsidence of this reaction the lesion never returned to its old condition of dry, persistent quiescence.

One of the remarkable circumstances of the case is the normal scarless condition of the lip after the severe treatments it received with roentgen rays, CO₂ snow and radium.—(The Journal of Cutaneous Diseases.)

ACUTE GASTRO-ENTERIC INFECTION

Wm. J. Pollock, M.D., Chicago, Ill.

In looking over the history of this disease and that of the other diarrheal troubles of children, it is interesting to note the great variation in terminology employed at different periods and by the different authors at the same period in the history.

Probably the explanation of this great variation is that most of the names employed have been unsatisfactory, and the profession have been looking for something that will better fit the conditions.

For many years the whole class of diarrheal troubles were placed in one great class and called summer diarrheas. This was unsatisfactory, because, as a matter of fact, these troubles were not limited to the summer season, and because there are many conditions or diseases of seemingly different etiology, pathology and symptoms grouped under this general heading.

Then followed the classification of the diseases according to the anatomical lesions, and this was soon found to be confusing, for many varied lesions were found to be associated with the same clinical symptoms, and the only way to differentiate many of the divisions of that time was to hold an autopsy and as this was of no particular benefit to any one but the pathologist some other classification was looked for.

A little later Vaughn, of Ann Arbor, proposed to classify all these affections as milk infections, on account of so large a number of them being caused by impure or infected milk. So far as this particular disease is concerned, there is perhaps ample reasons for so doing, but even then there are some cases that other foods are the cause as well as the milk, and there are undoubtedly cases where the food when taken by the child was pure and the condition of the digestive tract was the cause of the trouble, so that this classification will not hold good in all cases.

Then the bacteriologist comes along and says, "Let me

find the exciting cause of this disease as some one of the many bacteria that we know must abound in the intestinal tract," and so investigations have been made along the lines of bacteriology since about 1885 to the present day, with the result that no bacteria have been isolated that are accepted as the cause of this disease.

Among the earlier bacteriologists Escherich is given credit for the isolation of the bacterium coli commune in 1886, and also the bacterium lactis aerogenes the same year. The latter is found in the discharges from the bowels in nearly all the severe cases of cholera infantum and in other diarrheal troubles of milk-fed children.

Booker isolated seven varieties of bacteria that all resemble the coli commune, but all have distinct characteristics not common to the colon bacilli.

In 1902 Duval and Bassett, working in a sanitarium in Baltimore, were able to demonstrate the presence of the Shiga bacillus in the stools of children suffering from diarrheal troubles. This bacillus was isolated by Shiga, the Japanese investigator, and is the accepted exciting cause of bacillary dysentery; and while it has been found in many of the clinical types of diarrhea, it is most commonly present in those resembling most the dysentery, or those having blood or mucus in the stools.

The streptococci have been demonstrated in many of the cases, and some of the German investigators have contended that there is a distinct type of diarrhea which they are pleased to call streptococcic enteritis, but this has not been recognized by American clinicians.

Time would not permit nor does it seem advisable to go into the description of the different bacteria found in the stools in the diarrheal troubles, but it seems sufficient to say that the investigations that are being made may at some future time enable us to better classify these diseases.

The names under which this disease has been described, from its early history to the present, are summer diarrhea (then including all the diarrheas of children), acute gastro-intestinal catarrh, gastro-enteritis, cholera infantum, acute milk infection, and acute gastro-enteric infection.

Etiology

Probably the most generally active cause of this disease is the food. A mere excess of food is often sufficient to derange digestion and cause intestinal irritation. Overfeeding is also harmful, because it furnishes favorable conditions for the growth of bacteria and to cause fermentative processes to develop in the intestinal tract.

Artificial feeding is another factor that plays an important part in the etiology of the disease. One of the hardest problems that the physician has to solve in general practice is (a) the proper food for each child that must be fed artificially; (b) the proper proportions to use; (c) the proper instructions as to the preparation of the food and the knowledge that these instructions are carefully followed. It is a well known fact that about 90 per cent. of the cases are with the ones that are fed on the artificial foods.

The quality of the food is of the highest importance, and while there is marked improvement in the way that the dairy is managed, and improvement in keeping and transporting milk, yet there is still plenty of room for greater improvement.

Leaving the question open as to the advisability of pasteurization or sterilization of milk, we must admit that milk may contain toxins that are present before pasteurization takes place, and if that be the case then they would not be affected at all by that process.

Pasteurization cannot be relied upon to destroy all the germs that may be in the milk, and bacterial multiplication may be as great or even greater in the milk that has been treated to that process as in the raw milk.

The safety in milk feeding, then, lies in the careful supervision of the dairies, handling the milk in the cleanest possible manner, and the prompt delivery at the home and the prompt refrigeration after its delivery there.

There are other foods that will give trouble as well as milk, and the same care must be exercised with them as with the milk.

Next to the foods as an etiological factor is that of temperature. Most cases occur during the hot summer months, and the greatest number during the month of July. The hot months are the ones when it is most difficult to properly keep the foods, and at the same time the heat is so oppressive that the child's digestive powers are not as great as in the cooler weather. The child is also rendered more susceptible by the free action of the skin and the sudden cooling or chilling at night.

Age.—The age at which the greatest number of cases occur is between the sixth and the twentieth months.

Much difference of opinion is expressed in regard to the effect that dentition has on digestion. There is little doubt in my mind that the reflex disturbances, the increased secretions, the fever that often accompanies dentition, are sources of disturbance to the digestion and in that way predispose one to this disease.

Hygienic Conditions and Environment.—There is no doubt that those that live in the congested districts of the large cities and those that pay little or no attention to cleanliness and pure air are very much more susceptible than those that take advantage of the opposite conditions.

Institutional epidemics are not uncommon, and the utmost care must be taken in the care of these little ones at such times, so that the infection does not spread throughout the whole institution.

Pathology

There is extreme emaciation of the body affecting the muscles and fat, the fontanelles are depressed, the eyes sunken, the elasticity of the skin is gradually lost, and the skin hangs in loose folds. The body resembles that of one in the advanced stages of tuberculosis.

For the severity of the disease the changes in the gastrointestinal tract are surprisingly mild. There is congestion of the mucous membrane of the stomach and the small intestine, with, in some of the cases, small hemorrhagic spots. The solitary glands and Peyer's patches are swollen, and the center is often pale and signs of degeneration may be found. In some cases necrosis and sloughing has taken place, and an ulcer is left. In some of the cases the mucous membrane of the intestine is very pale and has a "washed-out" appearance.

Bacteria are found in the superficial layers of the mucous membrane and in the glandular structure. The small blood-vessels are usually distended, and an exudation of leukocytes often takes place. In rare cases a general septicemia is present, due to the streptococcus most frequently.

Lesions in other organs are not frequent, owing to the rapid progress of the disease, but broncho-pneumonia may be present, and in some few cases acute degenerative changes are found in the kidney, the liver and the nerve centers. These are generally due to the circulation in the blood of the toxins from the intestines.

Symptoms

The two cardinal symptoms of this disease are (a) vomiting, (b) diarrhea. In some cases the first evidence of this infection is fever. The temperature may be as high as 103° to 105°; intense thirst is the rule, and a complete loss of appetite. The infant will refuse the bottle, and if forced to take it will soon vomit. The vomitus consists of curds, liquids, mucus and bile. Vomiting is often so severe that the child will not be able to keep even water on the stomach. The curds have an ex-

tremely sour smell. The stools are large and watery; at first they are pale green, or yellow and offensive, and later lose their color and odor and consist almost entirely of serum. The number of stools may vary from ten to fifty or more in the twenty-four hours. They are at the first acid in reaction and later become alkaline, and a microscopical examination of them reveals numerous bacteria and shreds of epithelium.

The tongue is coated at first, and later becomes dry and red. The urine is scanty and in some few cases suppressed. The abdomen is distended with gas and tender on palpation. Emaciation is extreme, and the skin soon loses its elasticity and is cold and covered with a cold perspiration. The axillary temperature soon becomes sub-normal, even though the rectal temperature may be 101° to 102° F.

At the first the child is restless and fretful and cries constantly, but as the disease progresses this gives way to a semi-comatose condition, the child lying with its eyes half-open, breathing rapidly and at times irregularly, with very little evidence of vitality. The fontanelles are sunken, the eyes sunken, the features drawn and pinched, and the skin often of a greenish tinge.

One who has seen a few of these cases has seen a picture that he can never forget. Convulsions may occur or a condition of tetany may develop. The temperature may become extremely high before death, 106° to 108° F., or, on the other hand, when recovery is about to begin the temperature comes to about normal, the vomiting ceases, the stools become less frequent and of a more normal consistency and color. Convalescence is usually slow.

Prognosis

The prognosis depends on the infant, its surroundings, the amount and the severity of infection, and the length of the illness. An infant with good vitality, given good care and proper attention to hygiene and the proper medication, certainly should stand a good chance to get well.

The mortality has always been exceedingly high, and that fact alone has at times seemed to relax the effort to save these little ones, but you must bear in mind that as long as there is life there is hope, and that no effort must be spared as long as there is a breath of life in your little patient.

Treatment

No disease with which we have to deal demands more prompt, thorough and active treatment than does this disease.

It is of the utmost importance that we have a competent attendant to care for our patient and to follow the instructions

given to the letter, and to be able to recognize any changes that may take place and notify the attending physician of such change promptly.

There is probably no one thing in the treatment that demands greater attention than the diet and its proper regulation. If the infant is breast-fed, then discontinue the use of the breast for at least twenty-four hours and substitute for that small quantities of toast coffee, with perhaps a few drops of the best brandy added to it. There is not so much danger of starving your patient as there is of allowing the anxious parents to allow it to take foods that will only increase the trouble, and instead of being digested will either increase the vomiting or lay in the stomach until fermentation and decomposition take place, and then the absorption of the toxic materials by the already poisoned infant. Then after the acute symptoms have subsided the return to the breast milk must be gradual, and if the symptoms again develop we may be compelled to stop giving the breast milk entirely and supply some artificial food.

If the child is bottle fed then stop the food whatever it is. I say this because so many say to stop the cow's milk, but it makes little difference to me whether it is cow's milk or some of the artificial foods that is causing the trouble; it is necessary to give the stomach a rest and get it cleaned out before any food will do any good.

I use a toast coffee with these little ones in the beginning the same as I do with those that were breast fed, and after the acute symptoms have subsided I give very small quantities of rice water, barley water, albumen water, or some dilute beef juice. Any of these must be given in very small quantities, and then as the patient gets so that it can take some of the foods great care must be exercised not to make them too strong, and it is much better to begin with giving one-half to one ounce at a feeding than it is to feed the usual quantity that is given to a well child of the same age. Then the stools must be carefully watched and as the patient appears to digest the food well the quantity may be increased slowly.

Hygienic treatment consists of bathing the child often enough to keep it clean and to see that it is clothed in clean clothing, and that the napkins are changed as soon as soiled and are washed and dried away from the room where the child is kept.

The child must be protected from the sudden changes of the temperature, and yet when it is possible to have it in the open air without being exposed to the hot sun or to the chilling

winds it is advisable to do so. The child will do best if kept where the temperature is between 65° and 70° F., or as near that as possible.

Clearing the intestinal tract is the next thing of importance. Usually the stomach is cleared by the vomiting, and yet there are some cases where particles are still being vomited and where it is advisable to wash out the stomach with a weak salt solution and use a No. 10 catheter for the stomach-tube. It is best to use about one quart of the solution for one washing, and the temperature of the solution should be 100° to 103° F. Usually one washing is sufficient, and unless urgent symptoms of gastric fermentation be present I would not repeat the process.

Some cases do well by giving a good dose of castor oil to help cleanse the gastro-intestinal tract, and then follow soon with a thorough irrigation of the bowel. One irrigation will not be sufficient, and after the first irrigation I usually leave orders to have this repeated two or three times daily as the case requires. I have found that unless you have a trained attendant it is best to do the first irrigation yourself, so that the attendant may see how you wish it done.

The vomiting is one of the troublesome symptoms, and demands our early attention. If there is the elongated, pointed tongue, with the reddened tip and edges indicating gastric irritation, then we have several remedies that give excellent results, with perhaps slight variation in the indication. Of these specific ipecac, m. 1-15 to 1-10, or acidi hydrocyanic dil. m. 1-10, or bismuth subnitrate gr. 5, or the lac. bismuth m. 5, every hour to a child six months to one year old, will give excellent results.

I think that I hear some one saying to themselves that they stop all these cases of vomiting with the use of small and frequent doses of calomel. Well, perhaps you can, but if you can then either you are a genius or the drug mentioned has more extensive powers than any in our whole materia medica, for we have yet to find any one remedy that will stop all cases of vomiting from all causes and under all conditions.

If there are a few cases where calomel will do the work every time then I would be glad to learn the particular indications for its use and the particular conditions that must be present for it to do the work well.

The vomiting from nervous irritability is best controlled by rhus tox., where the mucous membranes of the mouth, and especially the tongue, are red and the papilla prominent.

The other remedies which we use to control vomiting are not usually indicated in this disease, but if the indications be

present for any one of them then do not hesitate to use the one indicated.

The temperature is best controlled by the use of the sponge bath of water three parts and alcohol one part, and by irrigation of the bowels with a normal salt solution at a temperature of from 90° to 98° F., and by the use of minute doses of aconite, which will aid in controlling the circulation.

There is no remedy in our whole materia medica which is so often indicated in this disease as belladonna or its alkaloid. We have the dull, expressionless face; the dilated, immobile pupils; impaired capillary circulation to the skin, cold extremities, and engorgement of the capillary circulation of the intestines. Small doses of atropine or belladonna will equalize the circulation in these conditions as no other remedy can do; send the blood to the capillaries of the skin and give it a warm glow and relieve the congestion of the internal organs.

After the intestinal tract is cleared of the offending material the diarrhea can soon be relieved by the use of glyconda m. 1 to 3, or the syrup rhei et potassi comp. m. 5 to 10, associated with lac. bismuth and aquae cinnamon.

Intestinal antiseptics are usually indicated at some time during the attack, and the ones that are most commonly useful and indicated are small doses of the sulphocarbolates of zinc or soda, or sodium sulphite. These are indicated by the broad pallid tongue, with white or dirty-white pasty coating; pallid mucous membranes, fetor, fermentative and putrefactive processes.

Stimulation is usually necessary at some period of this disease, and I have found that the ones that give me the best service with little children have been small doses of the best brandy and the use of normal salt solution per rectum, and in the extreme cases the use of the normal salt solution by hypodermoclysis. It is well to bear in mind that stimulation should be used only when indicated in order to obtain the best results.

The severe colicky pains in the umbilical, iliac and hypogastric regions are best controlled by the use of small doses of colocynth. Where the colicky pains are of spasmodic character and the pains are more diffuse, with tenderness on pressure, then dioscorea will be of more benefit than colocynth.

Where the stools are very watery and of a greenish color, then the arsenite of copper, gr. 1-100 to 1-150 every two hours, will give relief.

Please bear in mind that you will not expect to treat all of the cases exactly the same, but treat the conditions present in each individual case.

Summary

1. Look well to the cause of the disease in each individual case, and remove it as soon as possible.

2. The cardinal symptoms are vomiting, diarrhea and extreme prostration.

3. The pathology is that commonly found in acute catarrhal inflammations of the mucous membranes of the stomach and small intestines, except that the symptoms are much more severe than we would naturally expect with the same degree of pathological change.

4. The treatment must be active, earnest and energetic, and will consist largely of: (a) Stopping all foods for at least twenty-four hours, or until the gastro-intestinal tract has been cleansed and the vomiting stopped; (b) proper hygienic conditions established; (c) a proper diet established for each individual case (which will require great skill on the part of the physician); (d) a careful application of remedies to the conditions found in each individual case. It is a good rule to prescribe only such remedies as you are positive are indicated from the conditions that you find present, and not because you are able to call the disease by any particular name.

NEWS ITEMS

Dr. Orah K. Allen has changed her address from Franklin Hospital to 1501 Leavenworth Street, San Francisco.

Dr. E. P. Bailey, Long Beach, spent his vacation at Big Bear Lake during July.

Dr. Marshall Welbourn, Ann Arbor, Michigan, is spending a few weeks in California.

Died: Dr. Felicie Petit Piat of Kansas City, Missouri, died recently.

Died: Dr. Thomas D. Hall, Oakland, California, graduate of the California Eclectic Medical College, 1886, a practitioner of Oakland for many years, died May 30, aged 71.

Dr. Finley Ellingwood, Evanston, Illinois, died in Pasadena, California, June 20, aged 68. The body was cremated and the ashes taken to Evanston by his wife and son, where funeral services were held.

Dr. H. T. Cox, Los Angeles, will take a year's vacation and in the meantime his offices will be occupied by Dr. D. A. Stevens, recently of Holtville, California.

Dr. Leland Welbourn, Van Nuys, California, is spending a month in the mountains near San Jacinto, where he has been joined by his brother, Dr. Marshall Welbourn.

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:: Original Contributions ::

MANIFESTATIONS OF ASTHMA IN CHILDREN

H. V. Brown, M. D., Los Angeles, Cal.

Read Before the California Eclectic Medical Society

The condition known as bronchial asthma usually comes in with a sneeze, develops a wheeze and goes out on the sea breeze. All are quite familiar with its habits in the adult. In this short article I am not attempting to advance any new or startling theory as to the cause and treatment, but desire to emphasize the importance of more attention to these cases in children. There does seem to be a prevailing tendency to assume that they naturally fall into the class of incurables and physicians have been known to side-step their responsibility by the empty consolation, "The child will probably outgrow it." Neglected cases of asthma in the young will grow progressively worse until puberty, when there may be an arrestment, only to recur again at a later period when the nervous system happens to be short circuited by a unusually heavy load. A close analysis of each individual case in its incipency will more often than not reveal one or more deviations from the normal in the child's physiology which are due to faulty habits, incorrect feeding or some definite lesion. Coupled with this condition one may reasonably look for external exciting causes, such as a sudden change in the weather, sitting on damp ground or concrete, improper sleeping arrangements, and a long list of similar mistakes which are of no particular importance to the perfectly normal child but are important factors, and indeed may be the sole cause of the distress, in sub-standard children. In addition to the causes just named we have to consider protein intolerance, autointoxication, lowered renal function, and supersensitiveness to certain pollens. Also, one should not underestimate the importance of existing pathology in the nose and throat, but I have mentioned it last purposely to emphasize the more commonplace things which

are so frequently overlooked—one cannot collect as large a fee for advising a parent to cease feeding the child strawberries and oranges as he can for a tonsillectomy.

There are those whose periscope points only in one direction when confronted with a case of this kind—the surgeon or nose and throat specialist sees only the nose and throat; the osteopath and chiropractor can see nothing but a spinal column; the sex student always has a picture of adherent or overlong prepuce; the gland man thinks the child is drunk on internal secretion or famished for the want of the same; and so on without limitation. These men have their mental garage parked so full of tin hobbies that there is little room for the car of old common sense to cerebrate around. To be sure, none of these things should be cast aside as impossible without due investigation. When science discovers a new fact with relation to the cause and cure of a hitherto baffling malady the tendency is to hang all our weight on this slender thread of hope until it breaks and then cast it aside as another bubble bursted; when if applied with proper limitations it might have earned all the credit that the original discoverer claimed for it. It is a mistake to allow the smoke created by these single track hobbies to obscure our vision of the very real and human vehicle under observation. About the only cure for this tendency is to get the vision under observation. About the only cure for this tendency is to get the vision of every child which comes to us for help as a future man or woman; a weight of responsibility comes with such a vision which will secure for the child the most careful and painstaking examination of which we are capable. Such examinations should include a complete history of birth, infancy and childhood up to date, a complete physical examination with all clothing removed, and all laboratory work done which may help to clear up a doubt. This must include a careful inquiry into the home life of the family of which the child is a member, with especial attention to the quality and quantity and regularity of feeding; also inspection of sleeping arrangements and habits of play. If of school age it may be necessary to limit the amount of work temporarily or advise a few months absence from school. When all this and many more details of the case are gone over we are ready to advise the parents as to treatment. I strongly emphasize the importance of all instructions being in writing and in very concise and simple language. If this plan is followed it will not be so easy to fall into the habit of recommending some radical procedure to the exclusion of the more conventional but none the less important remedial measures.

The following three cases occurred recently in practice and will illustrate fairly well what is presented in the foregoing:

Case No. 1. Jimmie P., age 22 months, referred from state of Texas, diagnosed as pneumonia by family because of similarity to an attack one year previous which was so catalogued. Upon examination we found temperature 101, pulse 90 to 100, respiration 30 to 40, cough dry, broncho-vesicular breathing, paroxysms of dyspnoea at irregular intervals which was asthmatic in character, and the diagnosis at this time was bronchial asthma aggravated by a mild bronchitis. Previous history revealed that the child was artificially fed from birth, had always been constipated, and had for at least one year suffered from frequent attacks of asthma with some attendant eczema of the face; also a barely noticeable squint in one eye was present in this otherwise well nourished and beautiful baby boy. Treatment consisted of 48 hours absolute rest in bed on a cow's milk diet $\frac{2}{3}$ the strength of his usual ration, all other food being interdicted temporarily. Stools indicated intestinal indigestion which was soon cleared up by a good laxative, enemata and the restricted diet. The respiratory condition was medicated largely by inhalations of eucalyptus oil and tincture benzoin compound assisted by applications of Libradol (mild) to the chest. The acute condition was cleared in three days and the asthma and eczema had disappeared at the end of two weeks when the case was dismissed with proper instructions about feeding and avoidance of the pitfalls which superinduce colds in the predisposed. Jim was an unusually attractive child who was suffering from the admiring attentions of too many relatives; also his hair had to be bobbed and shaved up to the center of his ears without consideration for the state of the child's health or the weather, consequently a permanent cure depended upon either a reeduction or elimination of the said relatives.

Case No. 2. Shirley D., age 10, a girl of poor parents, undernourished, dull in appearance but mentally precocious as shown by school records; intermittent bronchial asthma for several years; history negative as to previous serious illness, bony structure of chest indicated early malnutrition. Examination: Eyes and ears normal; teeth, several cavities and jaw conforms to mouth breathing; tonsils submerged and evidence of chronic inflammation; adenoids sufficient to obstruct breathing; nose, post nasal discharge and some congestion of turbinates; chest, negative as to t. b. and no discernible heart affection; digestion poor and appetite capricious; bowels irreg-

ular in action; spine negative; urine and blood negative except moderate secondary anemia. It was found that patient was fighting asthma at night and going to school every day. Exhaustive laboratory examination deferred at request of father but the etiology already discovered was abundant and a written program was outlined for this girl at once. The tonsils and adenoids were ignored for the present and efforts concentrated upon building up nutrition by correction of habits of eating, sleeping, playing and studying. She was relieved from school work and these directions given: Retire at 8:30 after warm olive oil rub over entire body; arise at 7:00, drink one glass of hot or cold water, cool sponge over entire chest and neck followed by vigorous rub with rough towel, this to be followed by a few minutes light breathing and arm exercises; warm bath at bed time twice weekly; a light breakfast, heavy lunch and light supper was prescribed, consisting in varying proportions of cereals, vegetables, fruits, eggs, meats, sugar, bread and milk with some special instruction about the preparation of same. She was encouraged to be out of doors very much of the time. At the end of three weeks her physical condition had greatly improved and the asthma relieved but the question of permanent relief demanded clearing of the throat which was done with very satisfactory results. At last report she was still gaining in health and with reasonable care will grow into a fairly strong woman.

Case No. 3. Willard L., age five, son of healthy parents, no previous illness. First manifestation of asthma developed while at the beach about 18 months ago and has recurred at intervals since that time usually after vigorous exercise. Examination reveals a perfect well nourished body; quite frequently complains of pain in stomach on swallowing first bite of food in morning; nocturnal incontinence; urine scant and highly acid; redundant prepuce; history and examination otherwise negative. Treatment: Retire at 8 or before, arise at 7, drink glass of hot water, cool sponge or brisk rub; mild breathing exercises; diet restricted for a time and very light supper insisted upon; no liquids after 3 p. m. but water and milk freely before that hour; rough exercise prohibited; not permitted to sit down outdoors on ground or concrete material; circumcision suggested as a helpful measure unless early improvement occurred; the medicine prescribed was largely for the correction of the acid ruine and incontinence:

Potassium Citrate drachms 2

Spec. Rhus Aromatica drachms 2

Aqua dest qs a d ounces 4

M et Sig. One teaspoonful in water every 4 hours.

This treatment was instituted one month ago and there has been no recurrence of asthma and just one midnight accident.

Conclusions: 1. Manifestations of asthma in children are curable. 2. A very large part of the successful treatment consists in correction and regulation of the habits of living of the patient and often the parents. 3. Radical measures should be deferred until the physique is as near at par as will be possible by a strict program properly executed.

HYDROTHERAPY AS A PROPHYLACTIC

Frederick W. West, M. D., Los Angeles

Read Before the California Eclectic Medical Society

Rational medicine consists essentially, in the application of prophylactic measures, that is, the employment of means which are capable of maintaining a normal individual in a state of health.

It may be seen that if by employment of those physiological measures which are most effective in restoring a sick person to health, the individual may also be maintained in good health.

Hydrotherapy, or in other words, the scientific use of water in therapeutics, is, perhaps, one of the first means ever employed by man in the restoration of health.

The body being susceptible of reaction to a wide range of temperature renders water a valuable agent in the transmission of this temperature. Temperature commonly employed in hydrotherapy ranges from freezing (32°) to the boiling point (212°). The body, as aforesaid, being susceptible of reaction finds in the lower temperatures, that is, between 32° and 80° that, cold is one of the best and of the most powerful tonics and restoratives, and at the same time one of the most valuable of all known prophylactic or hygienic measures.

It acts powerfully upon the sympathetic nervous system, affording a gymnastic means for the vasomotor system of nerves and centers, and develops by exercise the contractile activity of the small blood vessels.

Cold water hardens the skin, that is, increases its vital resistance and when constantly employed affords protections against taking cold, the ability lying in the fact that the body is able to reheat the skin after it has been chilled by exposure or cold applications.

All the processes of nutrition and assimilation are quickened through the usefulness of cold when applied in various forms as the cold bath, cold sprays, sponges, etc.

All glandular activity is increased, not only in quantity but quality, thus the digestion of stomach and bowels is improved, the emunctories of the skin, kidneys and lungs afford a better elimination of waste products.

One of the most interesting effects of the cold bath is the increased production of the number of red cells, and not only this but also an increase in the hemoglobin percentage; thus more oxygen is delivered to the body cells and a likewise increased elimination of CO_2 via both skin and lungs; secondly, but none the less important, is increased phagocytosis, through this function, together with increased vitality the body is able to put up a greater resistance against adverse circumstances or the destructive influence of disease producing germs.

The increased number of red blood cells renders the effect of cold upon the blood as one of its most valuable and important uses and easily accounts for the freshness of color, clearness of complexion and general buoyancy and vigor which results from the habitual employment of the cold bath.

In the application of cold water as a hygienic or prophylactic means, care must be taken, to adapt both the temperature and the mode of application to the age as well as to the temperament and individual susceptibilities. Children of tender age do not well bear the application of cold water, therefore submersion in a cold bath or throwing cold water directly upon them at too low a degree should be avoided. Far better results will be obtained through the employment of such measures as cold sponging, mitten friction, graduated baths, cold sheet packs, cold compresses and the like.

Gratifying results will be had in fevers—enemas ranging from tepid (88°) down to cold (60°) perform a double duty, cleans the bowel of effete material, and especially on coming in direct contact with a large volume of blood surrounding the bowels much heat is extracted, thereby reducing temperature anywhere from $\frac{1}{2}^\circ$ to 3° at a single operation.

Heat may be extracted from the skin by the use of cold sponging; in order to avoid shock it would be better to treat one limb at a time, either wrapping the towel around it or sponging until the limb is cool. A sheet when wrung from cold water at the desired temperature and wrapped quickly and snugly around the little patient soon extracts a large volume of heat, the shock experienced when first coming in

contact with the sheet disappears in a few seconds as the heat of the body warms the sheet.

Cold treatments are excellent means of relieving urinary incontinence in children; are important aids to general development in growing children and increases not only muscular vigor and energy, but nerve tone. It prevents the development of neurotic conditions in young persons just entering upon manhood and womanhood, relieves so-called growing pains and promotes vigorous and normal development.

The daily cold bath is especially useful for women because of the deteriorating influences of their artificial life. The cold bath imparts nerve tone, combats nervous weakness of various sorts and to a very considerable degree the unwholesome tendency of the indoor and sedentary life to which most women are subjected.

The cold bath favors the development of the menstrual function in young girls, and in later life when the menopause approaches, will find, if this treatment has been maintained throughout the following years, that the distressing symptoms which generally accompany this change, will be materially lessened.

Cold treatment of any kind, generally speaking, should not be used just preceding or during the monthly period. In cases of dysmenorrhea, menorrhagia and amenorrhea hot fomentations, hot sitz baths and hot vaginal douches will render most valuable assistance at this period, but the time intervening between the periods is the best suited for the cold treatment.

Another class of individuals to whom this mode of treatment should especially appeal are the business men; so many walks in business life of necessity call for sedentary habits, but it matters not how important the business may be, just so long as man violates the law of nature, various distressing physical and mental disabilities are bound to come upon him. It is not to be wondered that men go down under such heavy strain circumstances force upon them, when the body is allowed to become impregnated with the impurities and waste products of the body.

Men should have access to plunges or open bodies of water where bathing and swimming could be enjoyed, but when such cannot be had, cold bathing is always obtainable at home. Age, temperament and susceptibility of reaction are the prime factors determining the degree of temperature and length of time employed in the treatment.

Where one has power of good reaction but shock pro-

hibits plunging into very cold water, less strenuous measures should be used.

A very much colder bath can be tolerated where sponging is employed, as only a portion of the body is bathed at a time. It is indeed astonishing how quick one can be trained to react vigorously and to be able to plunge into cold water, even to be given an ice rub, the coldest treatment, without flinching.

In some cases where the range of temperature interferes with obtaining good reaction due to shock, a short hot bath just preceding will prepare the skin for the shock and a far better reaction and feeling of well being will follow.

Sedentary persons should take a sweating bath of some sort once or twice a week, care being taken, however, to follow the sweat by a cold bath of some kind sufficiently prolonged to remove from the skin the heat imparted to it during the sweating process, and to produce vigorous circulatory and thermic reaction. By this means the skin is strengthened and protected against the disturbing influence of atmospheric changes. The sweating bath preferably should be taken just before retiring.

The neutral bath is of special value to those who find it difficult to fall asleep or remain there for any length of time. The tub should be filled with water ranging in temperature from 92° to 95°, duration of bath being from fifteen minutes to one hour, or longer if necessary. This bath should be taken at bed time as it possesses soporific power to a wonderful degree, inducing sleep even when hypnotics fail, and by its timely use the employment of sleep producing drugs may be avoided. The individual will find, however, that the morning cold bath will materially enhance the neutral bath.

Last, but not least, is another class of individuals who are gratefully benefited by the cold treatment—namely—the aged.

Decline in life gradually deprives them of their power of reaction, consequently care and caution must be used in treatment. The same rule applying to children holds good here also. Rheumatism, neuritis, chronic, bronchitis and other afflictions so common to the aged, respond very materially when cold, together with other appropriate hydropathic measures are used, thus affording them great relief from their sufferings.

LARYNGEAL DIPHTHERIA

Ida F. Kittredge, M. D., St. Louis, Mo.

This is an acute infectious disease caused by the Kleb-Loeffler bacillus. This disease is highly contagious, as this particular germ is very virile, and may live in a throat for months after a case has been pronounced well. It is usually contracted by direct contact, but may be contracted by instruments, hands, clothing, etc. Young children are much more susceptible than older ones, and succumb more readily to the disease, hence, the necessity of strict prophylaxis.

Predisposing Causes—Chronic catarrhal inflammations, adenoids, enlarged tonsils, cavities of carious teeth, will harbor bacilli, before and after an attack, and I have found whooping cough a predisposing cause for laryngeal diphtheria.

Pathology—Epithelial cells of the mucous membrane are attacked, also heart muscles, lymph glands, nervous system, kidneys, liver and spleen. Fortunate, the diphtheria bacillus is not apt to invade deeply the subjacent structures, but is found in great number on the surface of the affected mucous membrane, and false membrane. Unfortunately, the diphtheritic toxins are very diffusible, readily entering the blood and lymphatic circulation, and through these channels the poison is conveyed through the entire system.

Symptoms—In laryngeal diphtheria we do not have the clinical features found in diphtheria of the upper air passages above the larynx. The first signs of laryngeal invasion is hoarseness, croupy cough, and slight dyspnea. These symptoms readily increase until laryngeal stenosis is present. We also have a rise of temperature, with quick rapid pulse, according to the severity of the case.

Treatment—If there is any place in the practice of medicine where we have an indication for acids and iron, it is here. Echinacea is our sheet anchor for all septic conditions. Phytolacca is certainly indicated where you want an active glandular system. Aconite for the feeble, rapid pulse. Locally I like peroxide and listerine, one-half of each, dropping the peroxide as soon as the false membrane has disappeared. Antitoxin is used early, in good full doses. Use it while the lesion is practically local. If you wait until you have mixed infection, you need not hope for excellent results from antitoxin.

Intubation is an important means of relief—steaming with lime under a tent is an excellent aid. Brown iodide of lime, given early, persistently and frequently, has aided me in saving lives.

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O. C. WELBOURN, A.M., M.D.

Editor

D. MACLEAN, M.D.
Associate Editor

P. M. WELBOURN, A.B., M.D.
Assistant Editor

SPECIAL CONTRIBUTORS:

JOHN URI LLOYD, Phr. M., Cincinnati, Ohio.

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FINLEY ELLINGWOOD, M. D., Chicago, Ill.

HARVEY W. FELTER, M. D., Cincinnati, Ohio.

J. B. MITCHELL, M. D., San Francisco.

A. F. STEPHENS, M. D., St. Louis, Mo.

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A DIMINISHING PROFESSION

"The American Red Cross sees in the widening disparity between the increase of our population, and the decrease in the number of graduates from medical institutions, an added reason for promoting general training in first aid and accident prevention.

"The present standard of pre-medical education has lengthened the time and increased the cost of medical training, thus curtailing to a large extent the yearly attendance at the medical colleges. In 1904, there were 28,142 students attending the various medical colleges of the United States, this being the largest number in any year during the period 1880-1919. The total number of medical students in the schools for the year ending June, 1919, excluding pre-medical, special and post-graduate students, was 13,052. There was a decrease in 1919 of 578 below that of 1918.

"The high standard of efficiency established through the reclassification of medical colleges has caused the closing of many of the smaller and more poorly equipped ones. In 1906, there were 162 medical colleges in the United States: in 1919

there were only eighty-five recognized medical colleges. In 1903 there were 5,698 graduates from all medical colleges, one graduate for every 14,020 of population. This number has gradually declined in spite of the increase in population, until, in 1919, there were only 2,656 graduates a decrease of fourteen below that of 1912—one graduate for each 40,230 people.

"The longer hours and smaller remuneration of country practice have caused many physicians to move from the rural districts to the larger towns, where conditions are less difficult and remuneration greater. Many practitioners, desiring to specialize also, are attracted to the cities from the rural districts.

"That the high standard of medical education must be maintained goes without saying, if we are to render efficient service to those suffering with disease. Nevertheless the shortage of practitioners has caused increased suffering in certain localities which is very severely felt. Those who reside in the sparsely settled areas are left to the care of untrained assistance and serious illness or loss of life often results. Numerous illnesses and injuries occur which, when improperly treated or if treatment is too long delayed, may prove fatal.

"Universal first aid training would supplement the work of the physicians, take from them the burden of caring for unimportant injuries. To release their services for more serious cases, and would also place the victims of accidents in the physicians' hands in the best possible condition for future recovery."

All of the above is a verbatim copy of propaganda material sent broadcast by the American Red Cross. The facts stated therein are well-known to the profession and, that a scarcity of medical men is gradually developing, is doubted by no one. Furthermore, it can be safely stated that this condition was deliberately brought about in order to increase the emoluments of the few remaining. Our personal belief is that no such results will be obtained. Fewer doctors does not mean more work and higher fees for those few. It means that the people will turn to the patent medicine vendors—or the first aid Red Cross nurse as suggested above. Please understand that we are not decrying the value of either, because we are in accord with the belief of the people in that such help is better than no help at all. The thought that we desire to express is that the course of medical education as followed for the last three decades is a failure insofar as fulfilling the needs of the people are concerned. The "A" medical colleges at the present time are graduating men who are qualified to practice medicine only in a city with hospital facilities. The claim is made for these

men that they are super-efficient but it can not be substantiated except when they are working under the conditions named. Furthermore, those conditions are quite out of the question for the majority of our people and likely to remain so. At the present time no adequate provision is being made by our medical colleges to give medical care for this great majority. We use the term "by our medical colleges" advisedly because it will be seen that the American Red Cross proposes to prepare nurses to practice first aid—and who is to draw the line limiting their field of usefulness. There is work to be done and somebody will be found at hand to do it. For example, who will be doing obstetrics in the near future? The over-schooled man or the mid-wife? We venture the assertion that we will be on the German basis—one medical man for every 3,000 people with mid-wives doing the obstetrics and patent medicine men doing the remainder, a method which is not altogether bad. But it does seem to the writer that a medical man who has a high school education with three or four years in a medical college which teaches practical things, is a growing necessity. It certainly is not claiming too much to allege that he would do obstetrics better than a mid-wife and attend to the daily needs of the people better than a druggist. We believe that the organization of both medical men and nurses into two groups, each trained for a particular field of work but both having the single object of aiding the sick, would be a definite constructive measure.

NOTES UPON THE DIAGNOSIS OF LOBAR PNEUMONIA

Glentworth R. Butler, New York

There can be no difficulty in diagnosing the average frank case of pneumonia. The initial chill, the stitch-pain, the rapid respiration and expiratory grunt, make the diagnosis practically by inspection—a diagnosis readily confirmed by dullness and high-pitched whiffing bronchial breathing. But there is a certain proportion of cases in which, for various reasons, the existence of this disease may be overlooked, or it is mistaken for a malady of quite different nature. It is of such as these that I venture to write.

1. From time to time the clinician encounters cases in which, with sudden chill and fever in adult patients, there is severe abdominal pain as the chief and pressing complaint. The abdominal muscles are rigid, and in the initial stage the general clinical suggestion is that of an acute inflammation of

one of the abdominal viscera, particularly the appendix. More than once has an operation been performed under such circumstances, with negative findings, the subsequent developments demonstrating that the symptoms were those of an evolving pneumonia.

The explanations offered for the abdominal pain of certain pneumonias are somewhat varied. It has been attributed to irritation, by a pleurisy, of the lower six intercostal nerves which supply the abdominal wall with sensory fibers, the irritation of the intercostal fibers being reflected to those of the abdomen. Another, and more plausible, reason is that it is due to inflammation of the diaphragmatic pleura, in which the pain is abdominal, and the muscles of the abdominal wall are rigidly contracted in order to limit the movements of the exquisitely sensitive diaphragm. To the same end the respiration is almost purely upper costal. In favor of this explanation is the fact that in a number of personally observed instances the signs of the consolidation were first found at the very base of the lung.

As it is possible that a definite local abdominal condition, such as intussusception appendicitis, or acute peritonitis, may exist as a complication or a coincidence with pneumonia, it is evident that a positive decision must be attended with a slightly disquieting degree of uncertainty. But such complications or coexistents are very rare, and according to the doctrine of chances these possibilities need not enter very seriously into the problem.

The principal help in recognizing pneumonia which simulates an abdominal lesion is to have in mind the not remote possibility of such an occurrence. This forethought will lead to a most careful and minute physical examination of the chest, an equally careful observation of the mode of breathing and the action of the alae nasi, and a determination of the pulse-respiration ratio. As a rule, without harmful delay in true abdominal lesions, such an examination will reveal sufficient evidence to set one upon the right track. But there is bound to be an occasional misdiagnosis.

2. The occurrence of abdominal, and especially epigastric, pain in the lobar pneumonias of children is so very common that, for the most part, we are not led astray. But in the not inconsiderable number of infant's and children's pneumonias which begin with rather severe gastrointestinal symptoms, especially nausea and vomiting in addition to epigastric pain, we are not always so fortunate. Sometimes in the hurry of work, attention becomes centered upon the outstanding

gastrointestinal manifestations. We forget one of the cardinal rules of diagnosis, which is to make thorough and complete examinations until we feel reasonably certain that all pathological possibilities in the given case have been considered. If this excellent rule is observed the number of such errors will come negligible.

3. In certain, not uncommon cases of pneumonia in the very young, the clinician's life may be one of more or less miserable uncertainty during a large part, or even the whole, of the course of the disease. I refer to the delayed appearance of the physical signs of a pneumonia. They may not become manifest until the fourth or fifth day, more rarely not until on the eve of, or even after, the crisis. It has become necessary in such cases to make a diagnosis of pneumonia at a time when the most searching examination will reveal absolutely no physical signs in the chest. If an infant or young child has a high fever, of sudden onset, continuing high for a week or ten days, and ending by an abrupt defervescence, you can be morally certain that it has been due to a pneumonia, although there have been absolutely no physical signs in the thorax. If during this illness the respirations have been relatively more rapid than the pulse-rate, if the face has been flushed, the alae nasi dilating, and a slight expiratory grunt has been heard, one can be scientifically sure of the diagnosis. Ordinarily toward, or at, the termination of the disease, a spot of consolidation, perhaps scarcely larger than a bell of the stethoscope, can be clearly determined.

4. In the atypical pneumonias of either children or adults, what may be called incomplete, or limited, consolidation is often perplexing. By this I mean the cases in which the area of hepatization is so small that it is difficult to find it. Only through an inch-by-inch auscultation of the chest can some of these be disclosed. There are certain regions of the thorax to which special attention should be paid in the auscultatory search, viz., the middle of the interscapular region, the area just below the clavicle, the apex of the lung, and the uppermost portion of the axilla, into which the bell of the stethoscope should be deeply thrust. The last two, the apex and the upper axilla, are most important.

5. Many of the atypical pneumonias occur as a complication or a sequel of epidemic influenza—a fact which should teach caution and circumspection in all cases of the epidemic infection. The patient has influenza with some bronchitis, stays at home three or four days, then goes about his business. But in another day or so he feels worse, his fever returns,

and he takes to bed, obviously a very sick man. The physical signs are often very puzzling. For the most part they are those of a diffuse bronchitis of the smaller tubes, or a distinct broncho-pneumonia. After two or three days, however, one may find equally distinct signs of a consolidation, frequently small, and localized in one of the regions to which reference has been made. This finding is apt to come rather as a surprise, the previous course of the illness not corresponding to the usual mode of evolution of a lobar pneumonia.

In such cases as these it seems likely that the primary infection with the Pfeiffer bacillus prepares the ground for the later pneumo-coccus invasion, so that the signs of the broncho-pneumonia of the first infection becomes intermingled with those of a lobar consolidation.

6. In the great majority of instances it is usually easy to distinguish between pneumonia and a pleural effusion. But as experience grows one will find cases in which, over a consolidation, the breath sounds are weak or distant, with but little of the bronchial quality, and the voice sounds are not transmitted with increased intensity. Even the quavering quality of the voice, usually characteristic of fluid, may be heard. Per contra in certain examples of pleural effusion there is almost ideal bronchial breathing, and the whispered voice, and possibly, the vocal fremitus and resonance, are elicited with substantially normal distinctness.

Such cases may be extremely perplexing to any one of us. In the case of a large effusion, over which is bronchial breathing the whiffing respiratory sound is to the fairly well trained ear notably more distant than over a consolidated lung, and, as a rule, no rales or crepitations are heard. Moreover, in effusions, the bronchial breathing is heard only, or best, over the mid-lung, diminishing in intensity as the base is reached. So too, in such a case, the heart may be displaced to one side or the other, or the liver or spleen pushed down. The greater degree of immobility of the side containing fluid, as compared with its comparative freedom of expansion in consolidation, is another distinguishing point. The percussion note over an effusion is duller than over a solid lung. The finding of Grocco's triangle is in favor of fluid. The demonstration of fluid by aspiration is, of course the crucial test, but as most patients object more or less strenuously to anything in the nature of an operation, the prime question is to decide whether or no an aspiration is really necessary.

7. Pneumonias occurring in the aged, in chronic alcoholics, and as terminal infections in long-standing disease of

heart, kidney, liver, or the like, are often overlooked, partly because the symptoms indicating the onset of pulmonary inflammation may be so little characteristic, and the physical signs capable of more than one interpretation. The actual condition may be an infarction, or a hypostasis, or an edema, and not an actual pneumonia. If the clinician is alive to the possibilities in such patients a careful inspection will often afford a clue. The rectal temperature is slightly elevated. The pulse-respiration ratio normally 4 to 1, is disarranged, the breath-rate increasing in proportion. The manner of breathing is a little labored the *alae nasi* dilate, and the face may be slightly, but rather significantly, flushed. If in addition to these findings the physical signs of consolidation, although they may be quite indistinct, are discovered, it is safe to make the diagnosis of a pneumonia.

8. It is usually quite impossible to distinguish an acute pneumonic tuberculosis from an acute lobar pneumonia until the lapse of time reveals a steady continuance of the supposed pneumonia, the presence of tubercle bacilli in the greenish sputum, and the physical signs of cavitation in the lung. Fortunately this form of tuberculosis is so rare that it need only be borne in mind as a remote contingency.

9. Another very infrequent differentiation which may need to be made is between an irregular lobar pneumonia on the one hand, and meningitis or typhoid fever on the other. A few instances of this kind have been seen. Confusion can arise only in the early stages. The pneumococcus toxin is quite capable of causing cerebral symptoms which ape the onset of a meningitis—meningism, a convenient term to indicate symptoms which announce meningeal irritation without actual inflammatory changes. So also this toxin may give rise early to the symptom-group of the typhoid status. As a help in differentiation the blood count, Widal reaction, and lumbar puncture may be utilized, but usually the distinction is very difficult until the signs of the pneumonia become apparent.—(Archives of Diagnosis.)

THE DELINEATION OF THE HEART BY A NEW METHOD

Robert Abrahams, New York

The methods employed in ascertaining the size and shape of the heart both in normal and abnormal conditions are three, namely, percussion, auscultatory percussion and palpatory percussion.

The principle of palpatory percussion depends upon the degree of resistance offered by the organs which are under the hammer of percussion. In the technic of this method, the pleximeter finger is rather pushed than struck. As this method depends entirely on tactile sensation instead of any acoustic property, the plexor does not touch and run as in ordinary percussion, but hits and halts. This very dependence on resistance makes palpatory percussion an undesirable procedure, for the tactile sense is most varied and unappreciable.

Auscultatory percussion depends upon the stethoscope to make the percussion sound and more clearly and distinctly defined. However, besides one serious source of error to which Cabot directs attention, the method is clumsy in skilled hands and useless in unskilled ones. It requires the services of two persons, examiner and assistant, or examiner and patient. In this method also the naked ear is of no use, the stethoscope is absolutely essential.

These two methods never found many supporters in this country.

The method in vogue everywhere is percussion. Its value depends principally on the difference in the percussion note, around, above, below and over the heart area. Vesicular resonance indicates lung tissue, dull or flat resonance indicates cardiac muscle.

This method has also the advantage of resistance as well as sound. For one reason or another, it is the most universally employed procedure to delineate the heart.

At this juncture I may state, if not advise, that in all conditions of the heart, ill or well, before outlining its dimensions by one or all practiced methods, it is well to out line with ink, colored chalk, or colored pencil the normal topography of the heart. A little practice will enable anybody to do this in a second. First draw a curved line from the second right interspace close to the sternum to the point in the left fifth intercostal space where the apex is normally found. This line represents the left border of the heart.

Second, draw a straight line from the second right interspace close to the sternum, along the right edge of the sternum, to a point opposite the place previously ascertained as the position of the normal apex. This line represents the right border of the heart. The two lines are then joined by straight lines above and below, the resultant sketch is a quadrilateral which includes the normal heart.

The best way to determine the position of the normal apex is to draw a straight line a little more than an inch from the

left nipple in an adult male, or two inches from the left border of the sternum in an adult female, this line will intersect the fifth intercostal space at which point of intersection the apex is normally found.

A quick, easy and reliable way of ascertaining the superficial area of the heart, is to draw a line mid-sternum beginning at Ludwig's angle and ending at the ensiform cartilage.

From the end of this line a second line is drawn to the normal position of the apex, a third line is drawn from the apex to a point on the mid-sternal line opposite to the fourth left interspace. These three lines form a triangle and within its enclosure is the normal superficial area of the heart.

This, as stated above, is an essential preliminary to the delineation of the heart by any method one chooses to adopt. And if it is not "essential" it is very convenient.

Now to ascertain that these boundaries of the heart are correct, the old method of percussion is resorted to. Several points have to be observed for the successful percussion of the heart: (1), percussion shall be started on either side of the heart two inches from either border as preliminarily outlined; (2), in ascertaining the borders of the heart the pleximeter finger shall be placed parallel to the borders of the sternum, the tip of the finger pointing to the respective clavicle; (3), percussion shall be done over intercostal spaces and not over ribs; (4), the percussion stroke shall be light and quick; (5), in ascertaining the upper border of the heart, the pleximeter finger must be placed horizontally; (6), no effort shall be wasted to determine the lower border of the heart.

Percussion thus begun, it will be noticed, that as long as lung tissue is percussed the sound is vesicular, as soon as the borders of the heart are being approached the sound grows duller, and when the borders of the heart are reached, the sound is dull. Thus there is a gradual transition from vesicular to dull resonance. The further change from dulness to flatness is equally marked as one gradually goes from the deep to the superficial heart area. When, however, the transition is sudden as from vesicular resonance to absolute flatness, the presence of fluid in the pericardium should seriously be considered in making the diagnosis.

It was deemed necessary to describe the percussion method in detail, in order to contrast it with the proposed method for parallel advantages and disadvantages.

The new method is a method of auscultation, pure and simple. Its advantages are: (1), pre-eminent nicety of precision which is attained in a very little time; (2), its dispenses

with delicate finger technic which requires considerable practice to make perfect; (3), the great majority of general practitioners more aptly interpret the evidence of auscultation than that of percussion. I regard the latter point of very great practical importance.

In employing this new procedure the patient may assume any position he pleases, sitting, standing or reclining.

After having outlined the size and shape of the supposedly normal heart as above indicated, place the stethoscope two or more inches beyond the indicated borders of the heart. The stethoscope is preferably placed in the interspaces on either side of the precordial area. The patient is ordered to repeat "one, two, three," or "99" in an ordinary tone of voice. The effect is, that as long as you listen to lung tissue, the figures which the patient repeats will be heard coming from the lungs. As the stethoscope approaches the borders of the heart the voice grows less distinct, and as the borders of the heart are finally reached instead of hearing the voice coming from the lungs one hears it coming more from the lips. Wherever the ear or the stethoscope reveals a change in the voice, there a mark is made with pen or pencil. These marks are afterwards joined and form a line; this line constitutes the border of the heart, right or left, as the case may be. The whispered sound furnishes the same information as the spoken voice. It is well to employ both so that one may control the other.

The upper border of the heart is delineated in the same way, its definition is quite striking.

The superficial area of the heart is outlined by the same method and with the same ease and accuracy, perhaps more so. The stethoscope is carried from the superficial to the deep area while the patient is repeating the conventional figures, either loud or in a whisper. As long as the instrument traverses over heart covered by lung, lip sound will predominate over lung sound. As soon, however, as uncovered heart is touched all previous sound disappears, the voice and the whisper become completely extra-stethoscopically, as it were.

This method of auscultation can be advantageously employed in ascertaining the presence of fluid in the pericardial cavity. Adapting the same procedure it will be found that as soon as the edges of the effusion are reached, both the spoken voice and the whispered sound will abruptly terminate. This abrupt disappearance of sound is pathognomonic of the condition. The amount of the effusion need not necessarily be large to produce this auscultatory phenomenon. Small amounts will do the same, only that when the quantity of fluid is mod-

erate the patient should be placed in the recumbent position in order to level the fluid in the pericardial sac.

I am at present applying this method to the delineation of the solid organs which encroach upon the thoracic cavity, like the liver and spleen. The result will be reported later.

The principle running through this procedure was long ago recognized in the study and differentiation of pleurisy with effusion and pneumonia, or pleurisy and effusion and healthy lung, but I believe that it has never before been applied to the delineation of the heart and recognition of pericardial exudates.

Failure with this method is encountered in young children, either because the thorax in the young is a good sounding board for the transmission and dissemination of sound, or because some children cannot, and some will not, repeat the convention figures, either loud or in a whisper, upon which repetition the success of the method depends. But similar failures may be credited to the percussion method in the examination of young children.

This method is not very successful in another class of cases, in those with emaciated chests. If the emaciation is due to an underlying tuberculous condition, then the exaggerated spoken voice or whispered sound will be diffused over the precordial area, or if the emaciation is due to other causes, the ribs acting like tuning forks will carry and diffuse the voice beyond the cardiac limits. But here again percussion suffers from similar disadvantages.

However, this disadvantage is counter-balanced, when the method of auscultation is compared with that of percussion in their respective application to obese or very muscular people, the former by far exceeds the latter in value—the voice will penetrate the chest better than the percussion note.

The method of auscultation as here described is by no means advanced to supplant the time-honored percussion method in delineating the heart. As sponsor of the new method, I would advise the employment of both methods for the sake of more accuracy. I may even go a step further and say that in some instances, both methods should be supplemented by the fluoroscope, as the more methods for examination the less confusion in diagnosis; but for a single method, I believe that the method of auscultation will, in most cases, appeal to the greatest number of medical men.—(Archives of Diagnosis.)

SOCIETY CALENDAR

National Eclectic Medical Association meets in Colorado Spring, June 21-24, 1921. H. W. Felter, M.D., Cincinnati, Ohio, President; Dr. H. H. Helbing, St. Louis, Mo., Secretary.

Eclectic Medical Society of the State of California meets May, 1921, in Fresno, Cal. D. A. Stevens, M.D., Los Angeles, Cal., President; Dr. W. E. Daniels, Long Beach, Cal., Secretary.

Los Angeles Eclectic Medical Society meets at 8 p. m. on first Tuesday of each month. P. M. Welbourn, M.D., Los Angeles, Cal., President; C. Ohnemuller, M.D., Los Angeles, Secretary.

Southern California Eclectic Medical Association meets in October, 1920. Dr. Clinton Roath, Los Angeles, President; Dr. H. C. Smith, Glendale, Secretary.

NEWS ITEMS

Dr. C. C. Smith, Idaho, has been visiting his brother, Dr. T. D. Smith, Kingsburg, and also spent some time in Southern California.

Died; Rudolph Joseph Schmeidel, graduate of the C. E. M. C. 1899, aged 62, died July 6th at his home in San Francisco.

Dr. Judson Liftchield, Shawmut, Calif., spent his vacation in Los Angeles during the month of July.

Prof. Lloyd and wife of Cincinnati, Ohio, have returned to their home after a few weeks in Los Angeles where they were guests of their daughter.

Dr. Marshall Welbourn has returned East after a few weeks spent in Southern California. He plans to return and open an office in Los Angeles early in the new year.

Dr. and Mrs. T. C. Young, of Glendale, spent the month of August deer hunting in the Mt. Lassen district.

Wanted: A second-hand copy of Webster's Dynamical Therapeutics. Address this Journal.

Dr. O. C. Welbourn, Los Angeles, will leave early in September for a six weeks' trip through the east, visiting the various clinics. He expects to go north by boat, then over the Canadian Pacific to Minneapolis, where he will be joined by Dr. Marshall Welbourn, and they will go on together.

The first meeting of the Los Angeles Eclectic Medical Society, following the summer vacation, will be held at the offices of Drs. Welbourn in the Security Building on September 7. Dr. H. C. Smith of Glendale will read a paper on Gastro-Enteritis.

The Indian Medical Record is offering a prize of fifty

dollars for the best essay on "Tuberculosis: Its Etiology, Prophylaxis, and Treatment," but all offerings must be submitted before September 31, 1920.

A very valuable and interesting work has just been published by The Macmillan Co., New York. It is entitled "The Treatment of Syphilis," and is from the pen of H. Sheridan Baketel, A.M., M.D. The volume covers very thoroughly and convincingly the field of intravenous and intramuscular medication, and the administration of arsphenamine or neoarsphenamine. It gives in minutiae, step by step, the proper methods for the actual introduction of arsenical products into the system.

Dr. Baketel is Professor of Preventive Medicine and Hygiene and Lecturer on Genito-Urinary Diseases and Syphilis in the Long Island College Hospital, Brooklyn, N. Y.; Attending Syphilologist and Chief of Clinics at Volunteer Hospital, New York; Genito-Urinary Surgeon to the House of Relief of the New York Hospital; Lt. Col. Medical Reserve Corps, U. S. Army, etc., etc.

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:: Original Contributions ::

SUMMER COMPLAINT IN CHILDREN

H. C. Smith, M.D., Glendale, Cal.

Read before the California Eclectic Medical Society.

Cholera Infantum, or Summer Complaint, as it is best known by the laity, comprehends a catarrhal inflammation of the entire digestive tract—a catarrhal gastro-entero-colito-proctitis.

My personal experience with this disease—the bane of childhood in particular—has been very limited during the last ten years, but this unseasonable weather, particularly the protracted period of unusual heat of the past few weeks, has been responsible for a sufficient number of cases to remind me of old times in the Middle West.

The fundamental etiology of this disease is the same as that of other catarrhal affections, namely, auto-intoxication; due to retained excrementitious material, the result of over supply or of impaired elimination. The patient having become toxic because of more or less constipation, indigestion and consequent fermentation in the intestinal tract, further by improper feeding, such as uncooked foods, cold meats, ice water, ice cream, and carbonated drinks, has developed irritation, restlessness, and hypersensitiveness to atmospheric changes. Nature makes an effort to correct the condition by over activating the sudorific glands, and the resulting perspiration following exercise or during sleep renders the body surface particularly susceptible to chilling. The patient attempts to relieve discomfort during the day by removing all clothing allowed, by sitting in the shade or in draughts of air, or, if a boy, by a trip to the “old swimmin’ hole.”

During sleep the covers are thrown off and, in either case, the resulting chilling of the surface of the body causes a congestion of the internal organs and nervous system. The

mucous membranes of the gastro-intestinal tract become congested or, perhaps, inflamed, the secretory glands unable to perform their functions, and the ultimate result is the non-digestion and rejection of foods; their ejection from the stomach by means of emesis, and the bowel contents from the bowels by diarrhoea. The vomiting usually is difficult and somewhat painful, but relieves, temporarily at least, the nausea which prevails in these cases. The ejecta from the stomach at first is semi-solid and sour, later becoming liquid, yellowish-green, and bitter, consisting of peptones, principally. Water, foods, and medicine are alike rejected.

The ejecta from the bowel usually is formed, and consists of digested and undigested food at first, later becoming liquid, consisting of serous fluid, mixed with fermented bile and digestive juices, and burns the rectum and anus as it passes. Still later, if inflammation follows congestion, the bowels begin to shed its mucous membrane; the stools consisting mainly of mucous, which may be streaked with blood. There is considerable collicy pains at all times during the diarrhoea, but when the mucous membranes begin to shed the pain and tenesmus are almost unbearable; nearly always requiring opiates locally for relief.

At first the patient is irritable and restless, but as the body is robbed of its fluids, becomes relaxed and inert except when aroused by the pain or tenesmus. The pulse is rapid and, as the body fluids are lost, becomes weak and thready or soft.

The temperature is only moderately high ordinarily, 102 to 103 F. If the deeper structures become inflamed the temperature often runs very high. When the body fluids become low the temperature may drop to subnormal; usually indicating an unfavorable outcome and rendering the prognoses unfavorable.

Early in the disease the skin is hot and dry; the cheeks flushed, with marked pallor around the mouth. Later the skin is cool and pallid and, as the fluids are drained out, becomes dry, harsh and inelastic. The eyes become dull and sunken.

Usually nausea and extreme thirst prevail throughout; the nausea and vomiting causing the rejection of the water. The tongue, at first coated yellow, brown, or dirty white, becomes clean, sleek, glazed, dry, red and pointed.

The pathology ordinarily does not go beyond an inflammation of the mucous membranes, but in severe cases may involve the musculature, and in extreme cases the serous coats of the tract.

The prognosis in uncomplicated cases always should be favorable for if the temperature is kept within bounds and plenty of fluids furnished the body to replace those lost, Mother Nature mends things as soon as she has thoroughly cleaned house.

However, the predisposing constipation and toxemia may have so overloaded and irritated the kidneys with crystals and other waste that they, too, are inflamed, and this constitutes a serious complication, requiring special and careful treatment.

Intestinal parasites often prove a serious menace to these cases; sometimes remaining undiscovered and unsuspected until too late to save the patient by ridding him of his guests. The treatment of uncomplicated cases is very simple—give nature a fighting chance.

Withhold all foods. To do this is matter—Not. Aside from having to chloroform the mother and banish the father and neighbors, regulating the diet is easy. Nature tends to clean house expeditiously if not interfered with to too great an extent. Lessening her burden by withholding all foods, giving the patient hot water in sufficient quantities to give the stomach considerable bulk upon which to contract, and to cleanse the stomach thoroughly at the same time, expedites Nature's efforts, lessens distress and shortens the period of vomiting; thus shortening the disease and conserving the patient's strength, as well as permitting the earlier administration of our remedies.

Notwithstanding the moderate temperature usual in these cases, aconite is nearly always indicated. Its soothing action upon the sensory nerve endings in the mucous membranes with which it comes in contact is well known; this action helping very materially to quiet the irritation of the stomach, as well as lower the temperature. To quiet this irritation and render our direct remedies acceptable to the stomach it may be necessary to administer hydrocyanic acid in some form, the following combination being a favorite with me: Dilute hydrocyanic acid, 5 minims, Sp. M. amygdalus, 30 minims, water enough to make four ounces.

A teaspoonful every 15 to 60 minutes, as the occasion demands. This should be stopped as soon as the vomiting ceases as hydrocyanic acid soon becomes a cell poison even in these small doses. The affinity of mercury salts for peptones and bile is well known, and calomel in one-tenth grain doses, combined with soda or given at the same time as glyconda or neutralizing cordial serves to start these excretions on their proper course. As soon as the stomach will retain

it, geranium is our first thought, because of its demulcent, tonic and astringent properties. Belladonna often is the indicated remedy to control the capillary stasis and halt the loss of fluids. Gaseous distention often occasions great discomfort. This may be relieved by the administration of xanthoxylum or cajeput internally, and by enemata containing tinc. asafoetida. Minute doses of ipecac are often of great service; the red, pointed tongue and passive hemorrhages indicating its need. Many other remedies are indicated at various times in many of these cases.

There is another condition often included under this heading but which is not an inflammation at all, exhibiting little or no fever, probably a subnormal temperature. Usually there are involuntary discharges of fluid stools, which soon rob the body of its fluids, and cause weakness and emaciation. The one remedy that has given me uniform success in these cases is epilobium. At times such agents as belladonna, xanthoxylum or epilobium may materially aid in clearing up the condition.

PHYTOLACCA DECANDRA

J. A. Munk, M.D., Los Angeles, Cal.

Read before the California Eclectic Medical Society.

Phytolacca decandra is one of nature's finest products, notwithstanding that it is sometimes regarded as being old-fashioned and homely.

Indeed, there is no handsomer plant found growing anywhere than the pokerooroot, with its crimson stalks, intermingled green and scarlet leaves, white flowers and shining black berries, all present in the living plant at the same time. It has a perennial white, fleshy root and its annual foliage dies late in the fall and fades away in a blaze of glory. Its young shoots start to grow early in the spring and are eagerly sought after, much the same as the mushroom, by connoisseurs of succulent edibles, as greens for spring consumption. The plant reaches its full maturity in midsummer and retains its freshness and beauty until late in the fall.

The fresh root of the Phytolacca possesses drastic properties and in large doses acts as a poison. It is a powerful emeto-cathartic and a depressant of the vital functions. Its sweet, mawkish taste is not altogether unpleasant, and in tasting the root the temptation is to indulge too freely, when its harsh action soon follows. The berries also are said to be poisonous but are less active than the root. However,

they cannot be very injurious as birds eat them freely and even gorge themselves on the ripe fruit without producing any apparent ill effect.

Changing the *Phytolacca* plant from its native habitat in the east to a California environment does not seem to affect it deleteriously. If there is any difference that is noticeable it is in the direction of improvement, both as to its size and vigor, as well as its medicinal strength. I have at various times made a saturated tincture from the fresh root and found it as reliable as any that I have ever tried. Dr. H. T. Webster has also obtained and tintured some of the root, and likewise claims that it is as fine a preparation as he has ever used.

Medicinal plants from the Munk gardens were sometimes used as specimens for studying medical botany by the *materia medica* class in our college. This was a valuable experience as it enabled the students to obtain first-hand knowledge on both the physical and medical properties of the plant drugs under discussion.

Among the agents presented for study one day was *Phytolacca*. The fresh root was cut into small cubes and distributed to the class for examination. Because of its harmless appearance and mild taste, everybody sampled some of it to see what the effect would be. They did not have to wait long for results as the evidence soon indicated that something had gone wrong with the "inards" and the disturbance would not be appeased except by adjournment from the classroom.

One member of the class who was absent and of a Doubting Thomas nature would not believe what was reported to have happened and wanted to make the experiment for himself. Permission to do so was readily granted, and thereupon he partook rather freely of the root. Very soon he, too, felt its sinister influence, that disturbed both his bodily comfort and peace of mind, when he hastily made his disappearance from school and remained away for the balance of the day. After his recovery and return he frankly expressed his surprise at the result and admitted that the experience had converted him to the doctrines of the vegetable *materia medica*.

The practice of experimenting with drugs coincides with the teachings of Professor John M. Scudder, when he taught the students that they should sometimes take their own medicines, to ascertain for themselves how their drugs acted, and predicted that thereafter they would be more considerate

for the feelings of their patients when they meditated giving a harsh acting remedy.

Fifty years ago many Eclectic physicians lived and practiced in the country, and made it a rule to stop and gather plants found growing by the wayside, on roads over which they traveled. By this method they acquired some knowledge of botany and the medical value of plants. Furthermore, they did some office pharmacy and made many of their own medicines. That not only gave them reliable remedies but also enabled them to obtain their medicines more cheaply, and it is to be regretted that this custom had to go out of date.

Since then times have changed greatly, as most of the forests and wild lands where the medicinal plants grew have been cleared up and plowed under, and the native plants destroyed. But even if these things had not happened the doctor who did office pharmacy in bygone days could do so no longer after the country went bone-dry and all alcoholic liquors were banished.

However, Eclectics have no cause to mourn on this account as their wants are fully provided for by the Colloidal Specific Medicines that were invented by that wizard of modern pharmacy, Professor John Uri Lloyd, and are manufactured by the firm of Lloyd Brothers. For purity, excellence and beauty, these medicines stand without a rival and are rapidly superseding all other preparations on the market. They are not used exclusively by Eclectics, but are also in demand by physicians of every school. They retain the natural flavor of the fresh drug and mix perfectly clear with water. The physician who uses these preparations once will never use any others if he can help it.

Under the old nomenclature, Phytolacca was classed as a blood alterative and regarded as a valuable remedy in scrofula. It acts specifically upon the glandular system, and is useful as a remedy in all cases where any of the glands are involved. The specific indications for its use are a pale skin and pallid mucous membranes, with a sense of irritation or burning of the skin. It is also indicated in mucous ulcers and in any kind of ulcer with a sanious discharge.

The symptoms denote a depraved state of the blood and imperfect elimination by the emunctories. Under these conditions the lymphatic glands do not function properly, which defect Phytolacca helps to correct. It is useful in scrofula, mastitis, ovaritis, orchitis, tonsilitis and parotitis or mumps. It should also be remembered in abscesses and boils, which indicate the presence of impurities that nature is trying to eliminate. It is a valuable remedy in syphilis, rheumatism

and every form of skin disease. It acts somewhat slowly and is especially adapted to chronic diseases in which time is a large factor of the cure.

It is never necessary to administer the medicine in sufficient quantity to disturb the system, or to produce any harsh effect. Given in small doses in selected cases and continued for some time, usually brings the desired result.

RESORCIN

Herbert T. Webster, M.D., Santa Ana, Cal.

Read before the California Eclectic Medical Society.

Resorcin has been a favorite remedy with me for many years. I have not made the extended use of it suggested in the Dispensatory, for I have regarded it as a doubtful internal medicine. It is too potential in toxic property to be considered a safe resort as a systemic remedy, and its use here is better and safer supplied by agents more reliable and less risky. My experience with it has been with its local effect alone, and here I have been well pleased with it in numerous instances. I employ it in solution. A drachm of resorcin, half an ounce of alcohol, two drachms of glycerine and enough water to fill an eight-ounce vial are combined and well shaken. This is ready for use, and may be applied freely where indicated.

In stubborn eczematous and herpetic eruptions due to vegetable parasitic growth this solution is the most reliable application I have ever known. It is not adapted to scabies, due to burrowing mites, but vegetable parasitic growths yield slowly to its action in almost every instance, though its action is slow, and it must be continued patiently for a long time in many cases. Such affections are not usually painful or otherwise distressing except as their disfiguring effects are concerned. Occurring on the face they are mortifying to those who value a fair complexion. Such conditions are chronic, insidious in their inception, and stubborn when established. Long continued application of this solution will cause a gradual disappearance of such blemishes. Months and months of persistent application are necessary for success, but while other remedies are likely to fail entirely or produce unpleasant irritation, this is soothing and will almost invariably succeed in time.

While clear and colorless at first, the solution will gradually assume a yellowish brown color, due to the influence of light; and when spattered on enameled woodwork in a

bath room it leaves a permanent stain. If employed on the scalp it is likely to be scattered about, so I advise that its application be made out of doors. It may be applied to non-hirsute surfaces with a small sponge or wadded cloth.

I believe it is the best hair tonic extant. It cures dandruff in a short time, where the scalp is saturated with it, and it cures eruptions among the hair in most instances, especially if these be of scaly character. It slowly, as the light acts on it, imparts a brownish tint to grey hair, though it is not what one would consider a dye. Where the hair is graying in streaks it lessens the contrast and preserves the original color of dark hair. It does not wash out, nor does it impart the impression that the hair has been dyed. For years elderly ladies in my clientele have doted on this solution as an application to the hair and scalp. I recollect a young man who came to me years ago almost bald as the result of syphilis who now has a luxuriant head of hair, and it was restored in a few weeks with this solution locally and the internal use of specific berberis. I was not the first one called on to tackle this job. Several physicians had had a try at it before the case came to me. I have no idea that the treatment renewed lost hair follicles. Luckily they only needed the proper stimulus and the system proper treatment for syphilis.

I have learned to place much dependence upon it in all cases of devitalized hair growth. We have few remedies that compare with it where the hair becomes lusterless, brittle, and shows a tendency to fall. A few weeks' use of this solution, well rubbed in and the hair and scalp well brushed with a stiff brush afterward, will make a decided improvement in the appearance of the affected individual.

Another excellent use for it is in certain eczematous conditions about the anus. Having made hemorrhoids a specialty for many years past such conditions naturally have gravitated my way. Many people are affected by irritation and itching about the anus which they suppose to be due to piles, when the condition is really an eczematous or herpetic eruption in the cutaneous folds about the anus. Usually here pruritus is intense and exhercuating, causing much unrest day and night.

When I find the least evidence of cutaneous trouble about the anus in such cases my first thought is of my resorcin solution, which I advise to be applied with a soft sponge or pad of linen or cotton several times a day if necessary, to relieve the itching.

Most of us know pruritus ani is a very difficult affair to manage, and this application may fail to give relief, though

I have had so many successes with it that I always give it a thorough trial where it is reasonably indicated.

Pruritus ani may originate from a variety of causes and resorcin may not always be adapted to the case. I have relieved some bad cases by removing rectal pockets and papillae. Sometimes it may be due to hemorrhoids located low down. Resorcin is only adapted to cutaneous complication.

I sometimes find that the glycerine is objectionable to those who use the solution as a hair dressing. Some subjects have too much oil in the hair naturally, and do not want too much glycerine in the dressing. One drachm may be used here instead of two. In fact, the glycerine may be left out entirely, though it makes the solution more permanent. The solution does not dry out so quickly.

INDIANS AND HEALTH

Times have certainly changed. It wasn't so many years ago that when a crowd of Sioux Indians got together of an afternoon there was usually a considerable amount of battle, murder and sudden death in the air. According to the story books, the proceedings usually opened with firewater and scalpings, and closed with an entertainment in which a paleface tied to a stake was the chief performer.

But nowadays things are different. When the Sioux Indians in Minnesota get together it is to listen to public health lectures delivered in their own language, and frequently by members of their own tribe. There is a great deal of tuberculosis among these Indians, and the American Red Cross is endeavoring by means of these lectures to educate them in preventative measures against the disease. One old chief, Two Hawks, is an eloquent lecturer for the Red Cross. And a certain squaw, who had never before appeared in public, prefaced her remarks with the statement that if her audience were not composed of ladies and gentlemen she wouldn't talk to them.

A hundred years ago it would have been a brave paleface who would have delivered a lecture to an audience of Sioux. Some such lectures were delivered, but they were usually in the nature of deathbed remarks. Today, however, the Indians look upon these things differently, and they are eager to learn all the good that the Red Cross can teach them.

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O. C. WELBOURN, A.M., M.D.

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HERE AND THERE

At a table d'hôte dinner on a certain steamer a fat lady orders a very generous dinner and a lean lady orders a very modest one. The fat lady certainly enjoys her food and the lean lady just as surely does not. The appearance of each indicates that she is playing true to form. The fat lady finishes her own dinner and with but little urging devours the larger portion of her friend's dinner.

Query: Are fat people fat because they eat so much and lean people lean because they eat so little; or is each condition a manifestation of a disease?

* * *

In the smoking room of the same steamship a gentleman desires the assistance of three to make a hand at poker. Of the score and more present not one would acknowledge that he played the game. Card tables without poker and a bar with kickless drinks make of a steamship smoking room "not what it used to be."

It has been a quiet, peaceful day, with nothing to claim the attention of the lazy minded, except the spouting of a school of whales and the playful antics of the human vamps, both male and female. The ocean is so calm that its surface looks slick and oily. The boat glides through the water with a silent, undulating motion as does a snake through wet grass. In the evening the passengers gather on the promenade deck and gaze out into the west. The mind endeavors to dwell upon the vastness of the Pacific but is diverted by the eye which beholds a most gorgeous sunset. Two ladies lean upon the rail to enjoy the beauty and grandeur of ocean and sky while they meditatively smoke their cigarettes.

* * *

On Puget Sound a cold clammy day with a drizzling rain at intervals. The sky is heavy and featureless, with a thick haze through which the sun is discerned with difficulty. The tops of the hills are lost in it though fleecy sprays float down the canyons in a most beautiful effect. The water is choppy and of the color of the sky. Islands, both great and small, are scattered about in a most generous fashion. Apparently they are little else but rocks, but so liberally are they clothed with pines that they do not appear barren. Few of them are inhabited and their beauty is of the wild, untamed sort. As the steamer winds its way in and out among these islands, vistas of great strength and marvelous beauty command the attention in the same manner and to the same degree as do like combinations on the Inland Sea of Japan. Terraced farms among the trees with their quaint houses and people scattered about, and you have Japan—Japan, which by reason of the favor of her gods and the artistry of her people is the most beautiful country in the world.

BELLADONNA.

Belladonna is the remedy for dullness and hebetude, a condition frequently complicating spring and summer disorders. For the control of most of the symptoms of scarlet fever it can be relied upon. In the earlier stage of this malady we almost invariably find the indications for belladonna, and it aids materially in producing a prompt and full eruption. Later in the disease we have found that it is less called for, except in malignant forms, with a strong tendency to congestion. In most cases of measles it acts equally well. It is the best remedy we have for capillary stasis, and should be employed where the circulation is obstructed, the face either dusky or

very pale, the eyes half open during sleep, coolness of the surface, and tendency to stupor.—Editorial, Eclectic Medical Journal.

CRATAEGUS OXYCANTHA.

hTis drug was brought to the attention of the medical profession by the Homeopaths. In order to test the value claimed for it, Dr. Thos. F. Riley used it somewhat extensively for a period extending over two years, and he reports (Journal A. M. A.) as follows:

"It has been of decided benefit in a few cases of non-compensatory valvular disease in which there was an idiosyncrasy to the use of digitalis. It has no decided diuretic action, nor does it raise blood-pressure to any appreciable extent. Crataegus is essentially a mild cardiac tonic. When the heart is in a weak and irritable condition following grip, or in neurasthenia with a marked arrhythmia of the respiratory type, agents of the digitalis group are almost invariably badly borne. This is often a result of the digestive disturbance they so frequently entail. Here the crataegus often acts surprisingly well. It is a perfectly safe agent, with no poisonous effect. It can do no harm in aortic disease, and it is worthy of trial in these troublesome cases. In fatty degenerations and in heart lesions associated with high arterial pressures, it should be a useful agent. It is better given during or after meals in doses of from 10 to 30 minims of a good fluid extract or a drachm of the tincture. A combination with the bromides is useful in the irritative condition spoken of above."—Clinical Reporter, February, 1910, p. 58.

"Adapted to cases characterized by pain, precordial oppression, dyspnea, rapid and feeble heart-action, evidence of cardiac hypertrophy, valvular insufficiency and marked anemia, venous stasis."—Felter (National Quarterly).

FIFTY-SEVEN YEARS' EXPERIENCE WITH TYPHOID FEVER.

J. R. Borland, M. D., Franklin, Pa.

When we go back, we find that typhoid fever, under various names, has prevailed in this country for an indefinite period.

Eberle (1831) called it **typhous** or continued fever, to distinguish it from **typhus**; Maxon (1861), **enteric continued fever**; and Prof. Wood, **enteric fever**. Observe the **ous** (of or like), then **oid** in typhoid.

Of its causes but little was known. Some writers believed the disease was caused by **koino-miamsata** (malaria), from decaying vegetable matter being diffused in the atmosphere (**paludal poison**); others, that it was caused by **idio-miasmata**, or animal effluvia, prevailing the air of certain localities. As there seemed to be a difference in the results of the two ascribed causes, it was decided that the first (**koino-miasmata**) developed the intermittent type, and the **second** the remittent type of the disease. The definition of Prof. Wood seems to me the best, as it expresses or defines the pathological condition—the involvement of the intestines, Peyer's glands, etc.

When I commenced practice in 1851 nothing was known of the coccus of Leibnitz or Ebert's rods. The typhoid bacillus had not visibly materialized. It was believed that a poison was generated in the system, what we now call auto-intoxication. However, as to the cause, whether it came from without or was engendered within the body, we were in the dark.

The discovery in the early seventies of pathogenic germs, and the germ theory developed thereby, led to the discovery of the cause (the typhoid bacillus), and we had one good leg—the pathology of the disease—to stand on; and the other leg was found in the treatment adapted to keep out the intruders by proper sanitary measures, and, should they secure lodgment in the body, to kill and drive them out by the use of germicides, antiseptics, etc. Hence the uncertainties which met us in the treatment of the disease in former years no longer exist. So far as its pathology is concerned, **we know where we are at.**

Some description of the treatment in those early days may be interesting to the reader, also as showing its evolution. Orthodox physicians followed the treatment advocated by Eberle, Dunglison and others, which consisted in the use of calomel, comp. powd. jalap, saline laxatives, James' or Dover's powder, spts. nit. dulc., tart. antimony, carb. ammonia, the mineral acids, spts. mindererus, ablutions, counter-irritants, blisters, etc. It was no doubt an improvement upon that of former years, but the indiscriminate use of the mercurials often entailed bad results which continued through life.

The Botanics of early days claimed to have better results in the treatment of the disease than the Regulars, and not without reason, as their remedies were mostly the decoctions of the indigenous remedies, milder in action than those used by the Regular school, and were not followed by dire sequelae to vex the after-life.

Along in the fifties the Eclectics loomed up as an improvement upon the Botanic therapeutics. They followed the treatment of Beach, I. G. Jones, Paine and Scudder, which consisted in the use of concentrated powders, triturates and tinctures obtained from vegetable sources.

In the spring of 1852 it was my luck to run up against several typhoid cases, and I adopted the treatment used by my preceptor, about as follows: First, when called early, a cathartic of antibilious physic, to which, if there was indication for acids, cream of tartar was added; if for alkalies, a neutralizing mixture (comp. pow. of rhei et pot.) was added instead, to correct as well as possible the chemical condition of the stomach, which, as I viewed it, was an important matter. This was followed by powders composed of powd. ext. of cinchona (quinine had not come into vogue) and Dover's powder, one every three or four hours; a teaspoonful of spts. nit. dulc. in alternation. To promote diaphoresis, spts. of mindererus was given. To promote diuresis, an infusion of juniper berries, buchu and acetate of potassium was given. To reduce temperature and fever (the clinical thermometer had not come into use) frequent spongings with soda water, to which whisky was added, was employed. If symptoms of brain involvement developed, sinapisms were applied to the nape of the neck, along the spine and to the extremities, the head kept constantly wet with a lotion of water and whisky, to which salt or muriate of ammonium was added.

In 1853 I had a case of typhoid in which a persistent diarrhea was a troublesome complication. Dr. J. W. Wallace, of New Castle, Pa., was called in consultation. He was a gentleman of the first water, and one of the best diagnosticians I ever knew. In this case he prescribed a solution of nit. silver for the diarrhea, powders of hyd. cum. creta, Dover's and quinine (which had just come into use). In this case the diarrhea was easily controlled. To control fever, frequent spongings, as above, were employed. At that time we did not have the sedatives, as verat. vir., aconite, gelsemium, belladonna, etc.

Dr. Wallace was always looking for brain troubles, which often occurred in typhoid, and when congestion of the base of the brain loomed up, the head was shaved from the occipital protuberance down to the nape of the neck. A plaster of cantharides cerate was applied, to be left on till the skin was as well reddened as a mustard plaster would do, which would take from three to four hours, when the plaster was removed and a poultice of bread and milk applied. At the end of four hours it was removed, the blebs opened, and the

skin left intact. A fresh poultice was then applied and removed in sixteen hours; then the part was dressed three or four times a day with a cloth spread with simple cerate or castor oil, until well. This method of blistering is less painful and more permanent in results than counter-irritation with mustard.

Within a few hours after the application of the blister plaster, the patient would come out of the stupor, with a mind more clear and a more intelligent facial expression, and his convalescence dated from that time. I have employed blisters hundreds of times, not only in typhoid but in other cases of brain congestion, with marked benefit; and if I ever erred in their application it was because they were not applied early enough, while the golden opportunity was in hand; for I verily believe many persons might have been saved incarceration in the insane asylum had blisters been timely and properly applied. Applied to the nape of the neck only gives but little benefit.

During the seventies, the germ theory was elucidated and a scientific basis thereby found, upon which is being builded a **rational** and **specific** therapeutic—the dark places in diagnosis have been lifted. The progress in this direction during the last two decades has indeed been wonderful.

It is now known that the typhoid germ may be conveyed into the system by water and milk. Many illustrations are given, only four of which need be quoted. Some twenty years ago, a very severe epidemic occurred at Plymouth, Pa., which was traced to the dejections from a typhoid patient, emptied on the snow, by the side of a small stream. When the snow melted the germs were carried into the city reservoir. Hundreds of the people were stricken and many deaths occurred. Those who did not use the city water escaped. During the winter of 1893-4, Butler, Pa., suffered a serious epidemic, with several fatalities, which was traced to the contamination of city water, under like circumstances. Oil City, eight miles above us, has had some three outbreaks of typhoid in the last few years, attributed to river water. Some six years ago Titusville, a neighboring town, had an outbreak, with three deaths, which was traced to milk furnished by one dairyman. Those using that milk were the only ones attacked. Twenty-two years ago we had an outbreak here, caused by surface water seeping, during a thaw, into a small reservoir, which supplied about ten families. One person died and I attended some ten cases, all of which recovered. None were attacked except those using that water.

I treated my cases about as follows: First a mild cathartic

followed by fluid cit. magnesia. For the fever gave verat. vir., gelsemium, aconite or belladonna as indicated. As an anti-periodic, R quin. sulf. gr. 20; ferri prussiate, gr. 5; Dover's powder, gr. 30. M. Div. in chart No. 10. Sig.—One at 7 and 10 A. M. The fever mixture was suspended during the forenoon, resumed upon the accession of the fever, which was usually about midday, and continued till it subsided, along in the night. After the fever and periodicity was controlled and temperature became normal, the powders and sedatives were dropped and a restorative treatment was adopted; tr. nux and hydrastis being the main medicines. If stimulants were indicated, good French brandy was made up with sweetened water and enough brandy added to make it taste like sling. Of this a tablespoonful was given every one, two or three hours as required. If nerves needed toning, the elixir of valerianate of ammonia or valerianate of zinc was given. If the tongue became red and smooth, the tr. chloride of iron as follows: Sweeten a tumbler of water and add enough of the tincture to make it pleasantly sour. Dose, a dessert spoonful every two to four hours. Acid drinks—lemonade, dilute muriatic acid added to fresh water, make acceptable drinks, and should be given in small quantities. But during the stage of high temperature and fever nothing is more acceptable than fresh cold, or ice water. It **fills the aching void as nothing else can.** This I know from personal experience, having had the disease forty-five years ago.

For the persistent diarrhea the following is about the best remedy I have found: R Crys. argenti nit. powd., gr. 4; powd. opium, gr. 12; moistened bread crumbs, q. s. M. ft. mass., div. in pill No .12. Sig.—One every two, three or four hours, as required, till diarrhea is controlled; then less frequently.

Salol 5 gr. and bismuth sub. nit. 5 to 10 gr. is a very good remedy. A powder of this size once in three or four hours.

I have often used, to lower temperature, powders of phenacetin, salol and Dover's, with excellent results. Have also used sodium sulph. carb., zinc sulph. carb., listerine and hydrogen peroxide; and, as heart bracers, which are often required, nux vom., cactus, and the nerve tonics before mentioned, with plenty of brandy sling. **Whisky is no good.**

Have said nothing in regard to the diagnosis, as it did not seem necessary. Tenderness in right iliac fossa (the region of Peyer's glands), rose-colored eruptions—"lenticular elevations like flea-bites, the color of which recedes on pressure," and which first appear on the abdomen, **are diagnostic characteristics of the disease**, and differ from the sudamina which consists of small watery vesicles found in other fevers. The

expectant treatment pursued in some hospitals is, I think, a mistake, although undoubtedly better with good nursing, than improper medication. In these days, if called early in the attack, we should be able to cut short—**jugulate**, if you please to call it—the disease.

If persistent vomiting occurs, as it often does, the chemical condition of the stomach should be taken into consideration. If sour or acid matter is ejected, alkalies and absorbents should be administered, as bismuth, aromatic spirits ammonia, fluid citrate magnesia, etc. If the matter vomited is bilious, as observed by the greenish color and bitter taste, a solution of common salt in vinegar and water, in small and oft-repeated doses, will often stop it. But the best thing I have found in bilious vomiting, not only in typhoid but in many other diseases, is a plus-acid mixture described in King's American Dispensatory as **white liquid physic**, given in small and oft-repeated doses. In teaspoonful, three or four times a day, it will cure bilious diarrhea.

It is an old adage, probably as true in typhoid as in any other: "Remove the cause and the effects will cease." If the disease is caused by germs, if germicides will destroy them; if the germs can be destroyed, temperature and fever controlled, **no toxines** or but few **should be engendered**, and **the effects should cease or be nil**. That typhoid fever can be cut short—that it need not run from three to six or more weeks, if environments are good and proper treatment employed—I sincerely believe. In no disease is evolution evinced more plainly during the last fifty years than in the treatment of typhoid fever and typhoid conditions, owing more to bacteriological development than to anything else.—National Quarterly.

APOCYNUM CANNABINUM.

A Contribution to Its Action.

By Dr. Felix-Krammer, of Frankford-on-the-Main.

The fluid extract of Canadian hemp, the root of which plant has been used for a long time, as a medicine, in Asia and America and in the last decade also in Russia, does not seem to have obtained in Germany the attention it deserves.

The active principle of this drug, according to Liebreich and Langaard, is a glucoside called apocynin, whose action is, like that of digitalis, a cardiac poison. Like strophanthus, nerium oleander and vinca minor, the plant belongs to the Apocynae family.

The reports on this remedy so far as I have been able to follow them are unanimous in designating it as a cardiac tonic and diuretic. According to Gwovdinski, of Kiev, apocynum cannabinicum is known in Virginia as a household remedy and is used by some American physicians by preference as a diuretic. The dose according to this report is 15 drops, t. i. d., and given during the period of compensatory disturbance it causes no unpleasant side-effects.

According to Aleksejew the effect of the remedy appears, in proper cases, in two or three days. If no remedial action appeared in five days Aleksejew made no further use of the remedy. He prescribed small doses (from three to five drops) three to four times a day. After larger doses he met at times gastric disturbances and pains in the cardiac region. Cumulative effects he did not encounter. The dosage, according to Golubin, is five drops three or four times daily.

In Pawinsky's (of Warsaw) notices about apocynum cannabinicum the observations he made of the different effects of this remedy from those of digitalis on the vagus are remarkable. He found that apocynum cannabinicum acts more readily and energetically on the innervation of the heart than digitalis, but the effect of the latter is a more persistent one, that is to say, the effect of apocynum gives out more rapidly than that of digitalis. He would, therefore, use the remedy at shorter intervals, especially in cases of arrhythmia.

His dosage is somewhat higher: Eight to ten drops of the fluid extract two to three times a day. However, one should always begin with small doses. Pawinsky rarely met with unfavorable effects on the digestion from this remedy, of which effects some authors speak very extensively. Curative effects he found none.

The indications for the remedy are, according to him, valvular lesions and affections of the heart muscle at the time of disturbance of compensation. A. Robin gave thirty drops of this remedy three times daily.

A case in which the extract of apocynum utterly surprised me was as follows: A tavern keeper, 51 years old, who was affected with arterio sclerosis, myocarditis and a high grade of indurative hypertrophy of the liver. The edema and ascites could not be removed by the administration of the following remedies, viz., digalen, digitalis, digitalis with diuretin, alternated with caffeine, strophanthus, theocin, theophyllin, fluid extract, equisetum arvense, infusion of juniper, and treatment with calomel.

All these well-proven remedies were often administered in maximal doses. At times the fluid exudate would be re-

duced to a minimum (1200 grams). Before paracentesis abdominis was made the fluid extract of apocynum cannabinicum was tried, and with perfectly surprising results. The next day, twenty hours after the administration of the remedy, the swelling of the legs, especially of the right one, was reduced and showed natural relations of parts. The ascites too was reduced, but the swelling of the liver remained stationary.

The dose used in this case was twelve drops three times a day, gradually increased to fifteen drops at a dose. In spite of this improvement the swelling of the legs reappeared after four days. It is remarkable, however, that in a case where all other diuretics failed the apocynum should have shown such an almost magical effect. It is therefore explainable why Busch designates this remedy as the vegetable trocar. Such a remedy certainly deserves to be retried and administered in cases of compensation disturbances before paracentesis abdominis is resorted to. Should clinical retrial of the remedy be further confirmed then the text books should give it a place among the other well-tried diuretics.—Muenchener Med. Wochenschrift, No. 45, 1909.—American Journal Clinical Medicine.

A GRANULATING APPLICATION

Lee Strouse, M.D., Covington, Ky.

I have seen in the current journals and hospital reports that physicians often experience trouble in having raw and denuded surfaces to heal, where skin grafting has been resorted to. Failures attend the best of treatment, where the skin has been removed by injury or otherwise, burns seemingly causing the most trouble. I have just dismissed the following case. A Miss R., thirty-two years old, working in a shoe factory, had to clean a pint cement can, the cement being used between the first and second soles in the making of shoes. The cement is very inflammable, and she was careless in handling it. She was standing near a stove when the cement caught fire, burning both hands and arms to the elbows, to the second and third degrees.

The skin came off from the elbows to the finger tips, not so much in the palmar surface, on account of the thickness of the skin. Some of the muscles and tendons sloughed. During the sloughing I used white vaseline and cotton, keeping the pus cleared with peroxide of hydrogen at all times. Then I began the use of "black oil," which is made as follows: Mercury by weight, one ounce; nitric acid C. P., one ounce. Add

these together in an open earthenware jar, out in the open air, as it is liable to explode, and let stand until done cutting; then add spike oil and British oil, of each two ounces, stir well and let stand for fourteen hours; then add spirits of turpentine, two ounces. Stir it thoroughly. Then add of each, spike oil and British oil, two ounces. Mix all thoroughly, and it is ready for use. Apply two or three times a day with a camel's-hair brush. Leave it bare for fifteen minutes, then apply a soft cloth for a dressing. If it smarts and stings too severely, apply a thin coat of vaseline and cotton. After a time the cotton and vaseline can be dispensed with. Keep the pus cleared with the peroxide of hydrogen. No soap or water.

In the city where I live there is a cotton mill and a dye works, both under my professional care, and they have a number of burns as well as other injuries during the year. For the past fifteen years I have been following the above treatment in such cases with the best of success, not a single disappointment. Where there are exuberant granulations they vanish with three or four applications, or, say, about forty-eight hours. It was about a month in the above case until she was using her hands again. Less severe burns heal more rapidly. The new-formed skin is tender at first, but gradually assumes its natural appearance. This treatment has so far never disappointed me.—National Quarterly.

SOCIETY CALENDAR

National Eclectic Medical Association meets in Colorado Spring, June 21-24, 1921. H. W. Felter, M.D., Cincinnati, Ohio, President; Dr. H. H. Helbing, St. Louis, Mo., Secretary.

Eclectic Medical Society of the State of California meets May, 1921, in Fresno, Cal. D. A. Stevens, M.D., Los Angeles, Cal., President; Dr. W. E. Daniels, Long Beach, Cal., Secretary.

Los Angeles Eclectic Medical Society meets at 8 p. m. on first Tuesday of each month. P. M. Welbourn, M.D., Los Angeles, Cal., President; C. Ohnemuller, M.D., Los Angeles, Secretary.

Southern California Eclectic Medical Association meets in October, 1920. Dr. Clinton Roath, Los Angeles, President; Dr. H. C. Smith, Glendale, Secretary.

NEWS ITEMS

Dr. and Mrs. H. T. Cox, Los Angeles, after a two months' camping trip through Northern California, are in the southern part of the state for a short while.

Dr. O. C. Welbourn, Los Angeles, left early in the month for a visit to the eastern hospitals, expecting to return about the middle of October. He is accompanied by Dr. M. A. Welbourn, of Ann Arbor, Michigan.

The October meeting of the Los Angeles Eclectic Society will be held on October 5th at the offices of Drs. Welbourn in the Security Building.

Dr. A. A. Prall, Huntington Park, was granted a license at a recent meeting of the California State Medical Board. Dr. Prall will probably open an office in Huntington Park.

SPECIAL NOTICE

Dear Doctor:

Is it possible to place an Eclectic Medical College into Class A? Is it possible to so endow an Eclectic institution that even its most pronounced enemies will not be able to find any faults with it? Can we so improve an Eclectic medical college that it will compare with the very best medical colleges in this country? Can we make an Eclectic medical college an institution of learning to such an extent that we, all of us, shall be proud of it? Can an Eclectic medical college become a center of world-wide renown as a medical school, a school which will graduate the very best trained physicians?

The Council of Medical Education of the National Eclectic Medical Association believes that it can be done, and has selected the Eclectic Medical College of Cincinnati as the college on which it will concentrate its efforts for the present time.

The Council believes it can be done, providing you, doctor, are willing to extend a helping hand. To accomplish all of the above we need money, a great deal of money, and for this reason we ask you again, this year to contribute \$5.00 or \$10.00, or \$15.00, or \$25.00. Send us what you can afford toward this fund, and let us show you an Eclectic medical college of such magnitude and of such equipment that you will be proud to own that you have helped.

Doctor, this is a great work that we are undertaking, and we must have your help. Will you let me hear from you with a check?

Fraternally,

THEODORE DAVIS ADLERMAN, M.D.,
Chairman.

E. G. SHARP, M.D.

E. H. STEVENSON, M.D.

NEUROTIC CHILDREN

In the management of the more obvious neurotic manifestations in children, the average physician hesitates to use chloral or the bromides by reason of their depressing influence, and consequently all too frequently a serious therapeutic effort is not made, to the little patient's detriment.

It is in such cases that Pasadyne (Daniel) shows up to fine advantage. This product, a concentrated tincture of *passiflora incarnata*, possesses definite sedative properties and yet does not produce the distressing after-effects so often developing after the use of other sedative agents. Its reliability and high potency make Pasadyne (Daniel) an agent of large usefulness. A sample bottle of Pasadyne may be had by addressing the laboratory of John B. Daniel, Inc., Atlanta, Georgia.

ZEMATOL eradicates eczema. Samples and literature mailed free. Chicago Pharmacal Co., Chicago.

DERMATONE annihilates acne. Samples and literature mailed free. Chicago Pharmacal Co., Chicago.

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:: Original Contributions ::

A REVIEW OF COUGH REMEDIES

Herbert T. Cox, M. D.

Read before the Los Angeles Eclectic Medical Society.

In the summer time the farmer whets his scythe and sharpens his sickle in preparation for the coming of the harvest, so, likewise, the active physician should overhaul his medicine case and sharpen his thinker in preparation for the coming of the seasons, with their coincident affections. As winter is approaching the respiratory affections will predominate, with their accompanying symptoms and pathological conditions. Most prominent among these is the symptom of cough, which is most often quite annoying to the patient, a matter of concern to the relatives, and sometimes stubbornly resistant to treatment by the physician: so it is now timely to review the cough remedies.

The subject of this paper does not permit me to dwell upon the various classes of cough or their causes in detail, with which we are all more or less familiar, but as we glance over the cough or respiratory remedies, it will be well to keep in mind four conditions: (1) The non-productive cough, and (2) the productive cough, (3) the irritated or congested respiratory mucous membrane, and (4) the atonic mucous membrane.

Perhaps the cough remedies are more abused by layman and physician alike than any other group of remedies, because to the layman a cough is a cough, and there are plenty of cough remedies on the drug store shelves that cured Jones or Smith of his cough; and because to the physician too often a cough is simply a loose or a harsh cough, nothing more than a minor symptom for which the patient demands some medicine. But often we find that what relieved Jones'

harsh cough will not relieve Smith's harsh cough. This is where individuality of the case, and specific indications for or actions of drugs enter materially. A review of the action and indications of each drug taken separately would be too tedious, as we are familiar with them, although when we are prescribing it is hard to choose the proper one, because of the multitude of remedies in this class.

So let us classify the remedies according to their action upon the respiratory system, then keeping in mind our pathology in each case, and our specific indications we may choose more accurately. Briefly the respiratory remedies may be classified into four great divisions: (a) Drugs which influence the respiratory center in the medulla; (b) drugs that influence the bronchi and lungs; (c) expectorants; (d) anti-expectorants.

Group (a) is divided into two classes, those which directly increase, and those which directly depress the respiratory center. The accelerators are: Strychnia, Atropine, Ammonia, Apomorphine, Stramonium, Hyoscyamus, Digitalis and Emetine slightly. These are used to increase the force of the respiratory act and thus overcome difficulty, as in bronchitis, pneumonia, etc. The depressants are greater in number: Opium and its derivatives, Hydrocyanic Acid, Conium, Physostigmine, Chloral, Aconite, Veratrum, Prunus Virg, Bromoform, Gelsemium, Castanea, and the following seven which excite slightly before depressing: Alcohol, Ipecac, Chloroform, Ether, Caffiene, Quinine and Antimony Salts. These allay cough reflexly set up by irritation of the lungs, stomach, liver, pleura, trachea, larynx, nose and pharynx.

(B) The second group; the drugs that influence the bronchi and lungs, we will split up as we go. (1) Drugs that stimulate the afferent filaments of the vagus are: Ipecac and the Antimony Salts internally, and the irritant inhalations as Chlorine, Bromin, Iodin, Ammonia, Tobacco, etc., which are not used therapeutically for the purpose. (2) Drugs that depress the afferent nerves, these are the same as named under depressants of the respiratory center. (3) Drugs that affect the bronchial glands. These are divided into six sub-divisions.

(a) Drugs that increase the bronchial secretion are: Alkalies, Iodin, Apomorphine, Senega, Squill, Ipecac, Benzoin, Antimony Salts, Camphor, Lobelia, Jaborandi, Sanguinaria, Terebene, Turpentine, Volatile Oils, Asafoetida, Tobacco, Sulphur, Balsam of Peru, Tolu, Copaiba, Onion, Garlic, Lippia, Aralia, and Yerba Santa.

(b) Drugs which diminish the bronchial secretion are: Acids, Opium, Belladonna, Strammonium, Hyoscyamus, Inula, Agrimony, Prunus and Lycopus.

(c) Drugs that disinfect the bronchial secretion are the anti-septic inhalations, and Copaiba, Cubebs, Ammoniacum, Creosote, Creosote Carbonate, Hexamethylenamine, Volatile Oils and Oleoresins internally.

(d) Drugs which stimulate the neuro-muscular endings of the bronchi are those which excite the afferent nerves.

(e) Drugs that depress the neuro-muscular tissues of the bronchi and relieve bronchial spasms. These may be either (1) anti-spasmodic inhalations, as Ether, Chloroform, Amyl Nitrite, smoke of Strammonium, Nitre paper, Belladonna, etc.; (2) the depressants of the respiratory center; (3) the expectorants, or the following: Strammonium, Lobelia, Belladonna, Hyoscyamus, Sodium Nitrite, Nitroglycerine, Grindellia, Chloroform, Chloral, Tobacco, Ether, Opium, Ethyl Iodide, Conium, Cannabis Indica, Camphor, Drosera.

(f) Drugs that act on the bronchial circulation. (First) Those that stimulate the general circulation, increase the circulation of the bronchi, as Digitalis, Cactus, Strychnia, Strophanthus, Squill, Alcohol, Aromatic Oils, Ammonia, Asclepias, Atropine, Xanthoxylum. (Second) Those that depress the cardiac or general circulation, diminish the bronchial circulation, as Aconite, Alkalies, Iodids, Ipecac, Veratrum, Antimony.

(C) The third group are the expectorants; these are the remedies which facilitate the expulsion of the sputum. They may be divided somewhat according to their mode of action.

(a) Nauseating expectorants in large doses act mechanically by expelling the mucous in the act of vomiting, or in small doses by increasing the osmosis from the inflamed mucous membrane, they generally tend to increase secretion and lower blood-pressure, as Tartar Emetic, Ipecac, Apomorphine, Jaborandi, Alkalies, Potassium Iodid, Sanguinaria, Lobelia.

(b) Stimulant expectorants which either stimulate the bronchial glands or stimulate the expulsive muscles. Ammonium Chlorid, Ammonium Carbonate, Benzoin, Balsams of Peru or Tolu, Pine Tar, Oil of Pine, Acids, Squill, Turpentine, Nux Vomica, Strychnia, Senega, Licorice, Sugars, Peony, Phosphorus, Hydrastis, Serpentaria, Xanthoxylum.

(D) The fourth group includes the anti-expectorants, which diminish the amount of the water and thus dry up the secretion, and must be watched very carefully. They

are Acids, Iron, Atropine, Opium, Adrenalin, warm or cold dry air.

This completes the four groups, and within them are embraced practically all of the most used cough remedies and some that are generally thought of as belonging to other classes of drugs. As a suffix to the classification we will make a few further specific remarks.

More care is needed in prescribing for acute than chronic cases, so let us note a few facts concerning acute conditions. Lippia, Ipecac, and Cocillana relax congested tissues and lessen hypersensitiveness. Ammonium Chlorid, Squill, Senega, increae sensitiveness, aggravate the cough and increase the blood supply. Tolu, Copaiba, Cubeb and Myrrh check secretion, give no relief to acute congestion, but restrain profuse mucous discharge in chronic cases.

In acute cases with fever and dry painful cough, Bryonia, Rhus, Aconite, Chamomile, and Asclepias increase secretion and relieve congestion. To soothpharyngeal irritation and dryness use Sugar, Licorice, Gums, Mucilages, Elm Bark, Flaxseed Tea, Petrolatum or Emulsions of Oils. To relieve severe tickling or sensitiveness of the pharynx or larynx use Oils of Cinnamon, Peppermint, Cloves or Eucalyptus in very small doses on sugar to be dissolved in the mouth, or tablets containing any of the above or any of the following: Cocaine, Carbolic Acid, Menthol or Chloroform.

A condition which is often very annoying to the patient is that which develops after the acute stage has passed (which is perhaps sub-acute), where the mucous glands have lessened their outpour but have not returned to normal, and which results in the accumulation of a tough or tenacious mucous with an irritable dry cough which should be productive. A condition which can not be suppressed by a narcotic but which needs stimulation to the bronchial glands to increase their flow and loosen the mucous. Remedies here found useful are: Lemon, Acetous tincture of Lobelia, Stillingia, Sanguinaria, Ammonium Chlorid, Potassium Bichromate, Vinegar inhalations or mild solution slowly sipped.

Remedies which sometimes relieve cough when specifically indicated are Cimifuga, Valerian, Sticta, Checken, Achilla, Lactucarium, Saw Palmetto, Lycopus, Calcium Sulphid, Calcium Iodid, Echinacea, Collinsonia.

Don't give syrupy mixtures in acute cases, but give in plain water the indicated medicine to relieve the pathological condition of the respiratory tissues. Don't give syrupy mixtures in large doses for long periods in chronic cases, they

upset the stomach and set up a long chain of complicating conditions. Syrup should be used only when the medicine is very unpleasant or when it contains some agent which has a local effect on the nerve endings of the irritated mucous membrane. When giving such cough syrups instruct the patient to swallow the medicine slowly and take no water immediately afterward. If he complains that the medicine burns his stomach have him drink some water first, but not afterward. Now that we have most of the unpleasant remedies in the Colloidal Specific Medicine form, the using of syrup is less called for than formerly.

Vaccines and Bacterins which are useful and have definite indications I have not discussed, as they do not properly come within the scope of this paper.

SUMMER COMPLAINT

By W. E. Daniels, Long Beach, Calif.

Read before the California Eclectic Medical Society.

The term "Summer Complaint" is so far-reaching, and is rather indefinite as to the exact location and of its real meaning, that I hesitate to deal with the subject unless I separate it into its different divisions or itises. Years ago when we had the ordinary bowel diseases luring the summer season we were apt to term it "summer complaint" and let it go at that and treat accordingly, but now its our method of dividing it into its various locations, and we have several varieties, but I am quite of the opinion that after we have decided that we have an irritation of the alimentary canal or it is inflamed and affected we immediately lose sight of the particular part of the tract affected and proceed to treat "summer complaint" or summer diarrhoea.

I would not for a moment belittle specific or localized inflammation, but in the results and in the general symptoms I have never been able to gain any special advantage in dividing my cases into any special pathological divisions, and in my consultation with other physicians I observe they follow the old method of diagnosis and treating ordinary "summer complaint."

To me it would seem quite out of place at this time to take up the question of pathology, etiology or even the symptoms. If we are specially interested in that, any ordinary textbook will give it to you much better than I possibly can,

and I shall not presume on your time to take up that part of the subject, but, rather, take up the management and treatment of this troublesome complaint.

Unfortunately it is not confined to any part of our country, and I think I could, with equal propriety, treat "winter complaint," as many of our very severe and fatal cases occur in the winter months. It is really caused by an irritation of the intestinal tract, with fermentation, inflammation and auto-intoxication.

But let us take up a case and treat it to its successful termination; and I say successful termination, for to me it seems almost criminal to lose more than two or three per cent. of these unfortunate cases.

On being called to see a case of this disease I try to ascertain what the child has eaten and the amount and when. It may be that the case has been running several days, and in that case the patient will show the result of the illness, and in these cases there will be certain well-defined conditions present. The first step to be taken is to free the canal of all foreign or irritating substances and put them as near as possible in an aseptic condition, and I know of no better remedy than the ordinary castor oil. I know some object to this drug, but I use the aromatic preparation and as it contains usually about 95 per cent. pure oil I get as good results from it as I do the old kind of "buggy grease," and I am sure it is much more agreeable. I prefer to give several small doses, repeated every hour until the action is thorough. There are some patients that cannot or will not take it, and many who will take, but cannot retain it, and in these cases I do not hesitate to use the bicarbonate of soda with calomel, 1-10 to 1-4 grain every half hour until several free movements are obtained. I immediately follow with neutralizing cordial, and in fact unless there is some contra indications I give it with or at the time I begin my oil or calomel, and another preparation I begin with unless there be some special reason why I cannot give it is glyco-thymoline, a teaspoonful in half a glass of boiled water, and give ad libitum. I am not particular as to the antiseptic you use, but antiseptics are called for to prevent fermentation.

Of course I do not forget my fever remedies, such as aconite gelsemium, belladonna; and while we are taught that aconite causes irritation and vomiting, yet in these cases unless it causes irritation and vomiting I prefer veratrum vir. It has this advantage, namely, there will not be spasms to contend with and little or no brain complication, and in so

many of these cases there is a reflex action and the brain complications often take our little patients when the diarrhea would not. It should be given in small repeated doses, and the pulse and fever should be watched closely, so as not to weaken the patient too much or interfere with the circulation.

Let me add here that of all the sure and positive remedies in our Eclectic Medication there is none that has a wider range and will give you more specific action than veratrum vir. Echifolta and sulphite of soda should not be overlooked, and ipecac is one of our best and most satisfactory remedies. As an intestinal antiseptic the homeopathic preparation of Merc. Cor. given in about one grain doses of the second and not higher than the third, is one of our very best remedies if there is a green sour stool. It acts somewhat like leptandrin to stop that tenesmus so often present.

I now come to the most important part of my management of these cases, and the physician who has solved this part of the treatment is to be congratulated, and that is diet.

If you will bear this one thing in mind—that the diet for the first two or three days should be “wind and water.” Your object has been to clear the alimentary canal, and to introduce food again is poison to the system and a prolongation of the disease. Forbid absolutely all foods for at least twenty-four hours, and if the fever has not subsided and the diarrhea not greatly improved continue the fasting.

Milk in most of these cases is one of the worst diets that can be used, as it immediatly starts anew the fermentation and irritation. If the stomach will tolerate it, give boiled cooled water, and there will be no danger of starvation for two or three days or even longer. There has been more deaths from kindness on the part of the parents and ignorance of the doctor in regard to feeding than all other causes combined.

Rice water is among the best of diets when food can be given, but to get parents to understand and to have them resist the pleading of these little patients for food is a problem I have not been able to solve.

Let me, in conclusion, repeat again that absolutely no food, cleanliness, plenty of cool fresh water, and fresh air, with as little medication as possible, and few cases will go “according to the will of God.”

SURGERY OF THE BREAST

O. C. Welbourn, A. M., M. D., Los Angeles.

This subject, which the chairman of this section has assigned to me, is a big subject. Much too big to be dis-

cussed within the time allowable for any one person to occupy. Therefore I shall attempt to do no more than touch upon one phase of the matter. However, that phase should be of interest to all, for I have in mind the early treatment of tumors.

Tumors of the breast may be divided into benign and malignant, as the text-books say, but are they? Who can differentiate such tumors in the early stage while they are still in the possession of the patient? In the later stages any one can diagnose a cancer—even the patient herself—but then, what is the use? It is comparable to crying “fire” after the house is ashes.

Some tumors of the breast are benign and some are malignant. Again some tumors are benign at an early stage and later become malignant. Whether benign or malignant, there is but one method of cure worthy of the name, and that is surgical removal. Complete extirpation of all pathological structures. Should the tumor prove to be benign, the patient has been relieved of a troublesome incubus, which would have been a potential source of danger because of the probabilities of its becoming malignant. Should the tumor prove to be malignant, the life of the patient has been saved. And I use the word saved in the scientific sense because the matter is susceptible of proof. All cases of carcinoma of the mammary gland are curable during the early stages by surgical methods. In the last stages none are curable. And between these two extremes we get the percentages. The mortality depending upon the feasibility of a complete removal, and this in turn depending upon the stage of the disease in the particular case. I hope the day will come when all tumors of the breast will be removed as soon as discovered, and I believe that upon that same day carcinoma of the breast will no longer appear in official health reports as a cause of death.

SPECIFIC MEDICINE MACROTYS (COLLOIDUM)

H. Ford Scudder, M. D.

Macrotys directly influences the nervous system, relieving rheumatic pain when not the result of inflammation. It is the remedy for all pain of a rheumatic character, and is here prescribed with the best results. The specific indications for its use, as given by Dr. John M. Scudder, are “muscular pains, pains increased by muscular contraction, uterine pain with sense of contraction.” Use it in general muscular aching, aching pains in the muscles, as from overwork or strain.

Combined with the proper sedative, it is useful in all acute fevers, where the common symptom presented is that of a general tired feeling, with aching of the muscles. Try it in carditis or pericarditis of a rheumatic origin. In acute rheumatism and all rheumatic fevers, *Macrotys* is unexcelled. It is indicated in rheumatic neuralgia, sciatica, myalgia, rheumatic headache, ovarian neuralgia, and for the aching of the deep muscles of the back.

Macrotys directly influences the reproductive organs. Here it acts wholly upon the nervous system, relieving irregular innervation and strengthening normal functional activity. Consequently, in the treatment of diseases of women, it has an extensive field. Combined with *Specific Medicine Pulsatilla*, it is a specific in the majority of cases of dysmenorrhea, if given three or four days prior to the menstrual period, and continued until the flow is freely established. It is valuable in the treatment of amenorrhea, also in rheumatism of the uterus. For relieving false pains and overcoming many of the unpleasant sensations attending pregnancy, *Macrotys* is the best remedy we possess. Given in small doses, it prepares the patient for parturition, and contributes largely to an easy, uncomplicated labor. It increases the normal expulsive pains, and relieves all irregular, nagging, rheumatic pains. Try it in hysterical conditions, hypochondriasis, or melancholia at the menstrual period. In the treatment of gonorrhea in the male *Macrotys* is valuable, as well as for the aching in the bladder and over the kidneys. Here it aids in relieving the active inflammation by its soothing effect on the nervous system. It is also useful in orchitis and in spermatorrhea, with nervous irritability.

SPECIFIC MEDICINE GELSEMIUM (COLLODIUM)

H. Ford Scudder, M. D.

Gelsemium acts directly on the central nervous system, diminishing the blood supply of the brain and spinal cord, and relieving nerve irritation, whether direct or indirect. The specific indications for its use, as given by Dr. J. M. Scudder, are "Flushed face, bright eyes, contracted pupils, increased heat of head, general headache." With these symptoms there is generally present a high degree of nerve tension, accompanied by irritation, and in acute cases, an elevation of temperature, with hot, dry skin. From this it is apparent that there are frequent calls for its use in acute inflammatory affections of all kinds, especially in the acute fevers of chil-

dren, where severe irritation of the nervous system is generally manifest. I use it in all spasmodic affections, considering it the best remedy we have for the relief of reflex spasms of childhood.

Specific Medicine Gelsemium is a dependable remedy for spasmodic pain in the urinary organs, for retention of urine due to spasmodic contraction of the neck of the bladder, for the tenesmus of chronic catarrhal cystitis, in acute cystitis, and in spasmodic urethral stricture. It is a prompt remedy in the initial stages of gonorrhea. Uterine colic, all spasmodic types of ovarian neuralgia, and neuralgic dysmenorrhea are quickly relieved by Gelsemium. Combined with Pulsatilla, it is useful in suppression of the menses from cold. In acute colds, a few two-drop doses, administered half hourly, give prompt relief. In nearly all cases of epidemic influenza, Specific Medicine Gelsemium (**Gelsemium Red**), has been generally used with wonderful success. Here I generally combine it with Specific Medicine Veratrum. In confinement, Gelsemium dilates a rigid os uteri, quiets the general nervous system, and overcomes sharp, nagging, cutting pains. Try it in facial neuralgia, especially of the fifth nerve, in migraine, in tic douloureux, also in nervous wakefulness, where there is no pain. It relieves pain in the deep muscles of the back, and rheumatic stiffness of the neck. Use it in all cases of rapid heart action, induced by general nervous excitability, also in cardiac neuralgia.

In the passage of kidney stone, wonderful results are obtained from the use of Subculoyd Gelsemium. Here it may be combined with Subculoyd Lobelia. Thus combined, in the proportion of one part of Gelsemium to three of Lobelia, it is furnished under the trade term, GELBIA.

THERAPEUTICS OF VARICOSE ULCERS

Frank Webb, M. D., Bridgeport, Conn.

Many times the physician is called upon to treat this distressing condition, and consequently there are many methods of treatment. Very few physicians recognize the fact that there is a wide field for the use of many of our specific medicines and mother tinctures.

Now, to begin with, be sure that the ulcerated surface is cleaned, and that is best done by applying full strength dioxygen. It will burn some, but the burning will soon stop; then apply a 75 per cent. solution of echafolta to the cleansed surface until the patient cannot stand the burning, then dress

the ulcer with echafolta cream, with two grains of asepsin well worked into it. For the internal medication we will have to be guided by the indications. I recall one, in particular, that resisted every means, and had been to several physicians before she came to me. She had the characteristic indication for *sp. med. podophyllum*. I told her I had better put her on some medicine for her liver before I gave her anything for her ulcer, but she, being in that nervous state that she insisted on my doing something for the ulcer, so I gave her corn starch for a dusting powder and told her to apply twice a day. For the indications I gave her twenty drops of *sp. med. podophyllum* in four ounces of water, one drachm every hour, and told her to come back when she had taken up her medicine. She came as I told her to, and her first greeting was: "Why didn't the other doctors give me the same powder to put on my leg?" I looked at the ulcer and, much to my surprise, found that in four days it had begun to heal, and in less than two months had disappeared, and, so far as I know, never came back again, and this was six years ago. This taught me to look into the case more clearly, and I have found that about 45 per cent. come from a fault of the portal circulation.

There is another remedy I have had most excellent results with, and that is *carduus marianus*, the mother tincture, fifteen drops four times a day, in those cases that are directly traceable to varicose veins that have been bruised or have been ruptured by force. Where the breath is foul and of a sweetish taste to the patient, showing sepsis, *echinacea* will do better work than any other drug. In these cases I give from twenty to thirty drops four times a day.

Sometimes we will meet with a case that will resist all our means. Then make a solution of potassium permanganate, one drachm to the pint of distilled water, make a compress of cloth, about ten thicknesses, and apply three times a day. It burns when you first put it on, but it will soon cut down the edges and granulation will form; then follow up with your indicated remedies, and you will cure your case every time.

THE CALIFORNIA ECLECTIC MEDICAL JOURNAL

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O. C. WELBOURN, A.M., M.D.
Editor

D. MACLEAN, M.D.
Associate Editor

P. M. WELBOURN, A.B., M.D.
Assistant Editor

SPECIAL CONTRIBUTORS:

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J. B. MITCHELL, M. D., San Francisco.

A. F. STEPHENS, M. D., St. Louis, Mo.

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HERE AND THERE

The arrival of a train at a resort hotel brings a crowd of new guests. These, both men and women, line up to register in a more or less definitely defined queue. They are impatient as well as dirty and tired. A man forces his way up to the counter out of his proper turn. This provokes murmurs of indignation in a swelling chorus. Suddenly a woman somewhere in the waiting line pipes up, "Oh, well, gentlemen first, you know." Everybody laughs—except one.

A night arrival in a large city preceded by a wearisome railway journey. A nearby hotel looks good enough, although not inviting. After the usual preliminaries, quiet peaceful sleep. Unregistered time passes. Suddenly there are loud cries for help accompanied by pistol shots—one, two, three, four—apparently an automatic, both apparently coming from an adjoining room. There is a stealthy footstep in the hall and a heavy tread hurrying up the stairs. "Stop! Stop, or I'll shoot!" The man on the stairs retreats precipitately. The writer makes a determined effort to locate the man with the commanding voice with the idea of filling all the intervening space with furniture and other impedimenta. The cries cease.

All is quiet. Will the police wagon never come? Hours pass. A man in the room on the other side suppresses a cough. Again the bed looks good enough, though not inviting, and again sleep. Was it a nightmare? The hotel clerk diplomatically suggests as much. Still the guests talk in subdued tones, and one man pays his bill with the remark, "This is sure no place for mother's darling."

After seeing a rapid and a slow operator in action, a group of surgeons usually will fall into an argument as to the relative merits of each method. Just how rapidly an operation may be performed and still be done well, and just how slowly it may be performed without harm to the patient represent the extremes which in the opinion of the writer will never meet. A quick operation is spectacular, and a slow operation is conservative. By nature some people are one and some are the other—and medical men are just like other people in this as well as other respects. Moreover, there is no particular object in trying to change because the fast operator will have a following of his kind and the slow operator will have a following of his kind. However, it would seem that there must be a mean between the two extremes, and that this mean would be better than either extreme. It is somewhat like our body politic. On the one hand we have the radicals, and on the other hand the conservatives, and some of us would rather not be classed with either.

A certain distinguished surgeon, in speaking of another, said, "He is still young. He thinks and talks of what he is going to do, while I think and talk of what I have done." A remark which applies equally well to all men, for each of us all too soon will find himself looking backward. In a like manner do cities and nations grow to maturity and then decline. The "Spieler" for a sightseeing car in a certain city spoke enthusiastically of its many monuments and historic places, but failed to mention any present-day efforts of any kind whatever. Inasmuch as there was no visible evidence of material civic improvement, the inference would be that he and his speech fairly represented the mental attitude of its people.

Another city, and far removed and in a different clime—in fact in the "indolent" South. In age it is comparable with the former and to a native of other parts its historic buildings are just as interesting. In each city small bands of rebels fought the soldiers of their respective kings, and each was defeated in the initial conflict. In the former city the exhaustion of ammunition caused a retreat; in the latter every man

died at his post. Both are glorious heritages, and have helped to make a great people. But in the second city the "Spieler" of the sightseeing car began the tour by saying, "First we shall show you are business streets. Skyscrapers to the left of you—look 'em over." The tour was closed by a magnificent oration to the heroic dead on historic ground. In each city the tourists were largely "locals" and doubtless were shown what they most wanted to see. One community is still thinking of its past, the other is beginning to think of its future.

In a tour through an army camp an offensive odor is met. A lady quite confidently asserts that we must be near the hospital. She says she knows the odor. Query: Does a hospital have an odor recognizable from afar off, and, if so, why?

A JAPANESE EXAMPLE

While the Japanese question is exercising our minds and the Times is entirely in accord with the principle, if not entirely with the methods, of the agitation; while it is admitted that the Japanese standard of living is lower than Americans would care to emulate; while it is regrettable and undesirable that whole sections of California should have become almost exclusively Nippon and that in many instances they have crowded out American farmers from the land and American children from the schools; while, in short, Californians must be almost of one mind in wishing and insisting that this peaceful but alarming invasion of the Japanese be effectually checked—still it must also be frankly admitted that in some respects Americans could emulate the ways of the invader with considerable profit and advantage.

The principal indictments against the Japanese are their indefatigable industry and their birth rate. The latter is a particular source of alarm, since this prolific increase of Japanese babies so effectually offsets the immigration restrictions and creates new Japanese-American citizens by the thousand every year. Not only is their birth rate higher, but their infant mortality is almost nil. The Japanese mother not only has babies, but rears them successfully.

And while the State is loud in its outcry and alarm, what are the rightful heirs of the State, the Americans themselves, doing about it, beyond listening to hectic speeches, reading alarmist articles and expressing their horrified concern? Are they, too, sanctifying their marriages with fine American offspring and seeing to it that their birth rate shows the

proper and desirable increase in free-born American citizens to carry on the splendid responsibility of this great nation? Or are they shirking their own responsibilities, selfishly considering their own immediate comfort and depending upon foreign immigration to take care of the census?

The statistics are painfully illuminating upon this score. In our hearts we well know that we are damning the Japanese for the very virtue which is most essential to the welfare of the country at large and California in particular. Where an American family has two children the Japanese have at least half a dozen. But more often the American couple has but one, or none at all.

And the situation is, of course, aggravated by the landlords who bar children from their property. It is aggravated, too, by the ever-rising apartment house, where, even were the landlord agreeable, it is impossible to raise children. It is aggravated by the high cost of living, a condition arising chiefly from the absence of that tireless industry and application which we deem such a crime in the Japanese. But whatever the causes, the fact remains that the American citizen is not doing his duty to the State and the Nation. The blame cannot be put wholly upon the wives, whose cowardice and selfishness are often aided and abetted by their husbands, for well we know that both sexes are equally culpable in this vital department of public duty.

It makes a good election cry, this Japanese invasion, and no one wants to see California become a Japanese colony. And while a certain amount of legislation may meet the case in part, the vital need of Californians is to beat the Japanese at their own game. We have seen the amazing and effectual result of persistent industry on the one hand and of a healthy, prolific birth rate on the other. These "criminal" virtues are responsible for the rapid rise of the Japanese in California and without them they could never have been of any account, never have become an international issue, never have given us a moment's concern. Which might have been more comfortable for ourselves, but would most effectually have stultified Japanese progress and Japanese influence, just as it must stultify our own.

So long as we are content to depend upon foreign immigration for our census gains, so long as Americans deny the right of existence to future American citizens of our own blood, this country must always be up against a "foreign menace" much more subtle and alarming than actual military invasion. So long, moreover, as we are willing that "inde-

fatigable industry" should be the exclusive virtue of the invaders, while our own workers continue to strike for shorter hours and higher pay, just so much are we sacrificing our independence, jeopardizing our own national strength. Had our forefathers shirked their duties in application and industry, in child-bearing and responsibility the United States could never have risen to the proud place she holds in the world today.

We repeat that, no matter what restrictive legislation is finally agreed upon, the most urgent remedies for our troubles are more and better American babies, more honest and applied industry, more genuine homes and less apartment houses and a very emphatic reversal of public opinion on the barring of children from rented property. No matter what our opinion of Japanese morals and customs, no matter how we may agree upon their non-assimilable qualities, the most important contributive remedy remains in our own hands. If we are sincere in wishing to maintain California for the Californians we must ourselves till California soil, welcome and rear California babies and see to it that a fine generation of healthy and industrious natives become the rightful heirs of the finest country on God's earth.—Editorial, Los Angeles Times.

DR. MUNK HAS HOME-MADE WOODLAND

There lives, near Compton, Dr. J. A. Munk, a retired physician, 73 years young, who is sui generis among naturalists of this section. Native of Stark County, Ohio, Dr. Munk has lived in Arizona and Southern California a great many years. He has written books on his observations of Nature in the Southwest and another work along this line soon is to be published by a prominent firm. Dr. Munk was a close friend of the lamented Hector Aliot and has donated extensively from his library to the Southwest Museum in Los Angeles.

Homer wrote of one who did kindly deeds to those who passed his way: "He was a friend to man and he lived in a house by the side of the road." Dr. Munk is a man of this type. He has a ranch on the outskirts of Compton. On this ranch are all manner of fruits, grapes and berries. Of these he sells none. Reserving enough for family use, the residue is given generously to friends, neighbors and those who, like himself, are deeply devoted to Nature and who come to see his unique woodland.

Being of the type that "finds tongues in trees, books in

the running brooks, sermons in stones, and good in everything." Dr. Munk, several years ago, set apart a portion of his Compton ranch for an unusual purpose. When John Burroughs sighs for the woods, he goes to the forests. When Dr. Munk sighed for the familiar trees of his boyhood days back in Ohio, he resolved, instead of going to the Ohio forests, to bring the Ohio forests to him. So he has collected perhaps the most complete assemblage of trees, shrubs and plants indigenous to Ohio and neighboring states that may be found anywhere in this section. He has specimens of about every kind of Ohio tree except Presidential timber. Poplar, red oak, white oak, ash, linden, maple, beech, sumac, pawpaw, mulberry—they are all in that miniature woodland. Buckeye, too—no collection of Ohio trees would be complete without it. Slippery elm—O blessed memory of boyhood days, when mother's poultice of slippery elm bark relieved the stone-bruise and other pains! And wild cherry—remember the "bitters" mother used to make, for coughs and colds? And boneset—what bitter memories the sight of it conjures! Quinine is sweet compared with it—so thought the Ohio boys in the old days! Pokeberry—how the boys and girls of other years crimsoned their cheeks with its ready, ruddy rouge! And elders from which popguns for mimic boyish battles were made. Jimson weed and "pusley"—the botanists do not name it thus, but every Ohio boy knows it by that name—Dr. Munk has it growing in his little forest, and it looks like it used to look when boyish backs were strained pulling it out of the garden and cornfield.

There's a stagnant pond in the midst of this pigmy woodland—just such a pond as many an Ohio boy can remember as being out in the pasture field, mayhap shaded by an elm, and peopled by croaking frogs, and into it the cattle waded on hot days to cool their heated bodies, lazily chewing cud and switching flies with their tails; and around the pond grew the fragrant mint, and the calamus, and from its slimy waters arose the stately cat-tails and the bulrushes—all these Dr. Munk has in his little Ohio woodland.

If any former Ohioan of this city falls into a "Backward, turn backward, O Time in your flight" mood, just drive over to Compton and inquire for Dr. Munk's place and go right into this woodland. The good master of the estate welcomes all interested visitors and everything is "without money and without price." Nothing to sell, no savor of commercialism about it, just sheer love of Nature.—(Pasadena Star-News.)

IMMEDIATE REPAIR OF THE PERINEUM FOLLOWING LABOR

Charles J. Hemminger, M. D., Rockwood, Pa.

The portion of the pelvic floor that lies between the anus and the posterior commissure of the vaginal opening is termed the perineum. Under ordinary conditions of health and normal functional activity this floor easily preserves its integrity, supporting both outlets in their proper relative position, thus retaining the pelvic viscera lying immediately above, and effectively resisting the additional strains to which this part of the body is subjected, in consequence of the erect posture and woman's activity as a laborer.

We will not detail the anatomy, structure and relations of the perineum, being more interested in the physiology of the perineum, and, in case of damage, its restoration to the normal state. The real supporting part of the perineum is the truss-like muscular formation, with the pubic ramii as abutments and the muscles bridging across, encircling the anus close to the orifice, while the muscular support of the vagina is about one and one-half inches from the center of the vaginal orifice. So long as this truss, so to speak, remains intact no real prolapsus can occur. In pregnancy this tight mass of fibres is softened, in common with the other parts of the parturient canal, by the excess of blood and serum supplied during the months of gestation.

When the fetal head impinges on the outlet in normal parturition, the first expulsive efforts drive the fibers down, then rotate them outward, forward from under the pubic arch, and finally, by impact following impact, they gradually stretch and dilate until the head slips safely over without injuring the perineum.

This is the ideal procedure in labor, but the result is far different if the head is unusually large, or the shoulders large, or when we have the directions of the head different to the axis of the pelvic canal, or when the head is suddenly driven through an unprepared vaginal canal by abnormal expulsive pains, or brought down too suddenly and rapidly with forceps. Of course, excepting the cases in which the head is out of proportion to the canal and where no softening of the canal occurs.

Injuries resulting from childbirth are of two kinds, viz.: Visible and invisible. The visible tears are manifest on inspection. The invisible is the subcutaneous rupturing of the muscular tissues. The character and extent of the ruptures vary from a simple superficial rent involving only the mucous membrane, so slight in extent and of so frequent occurrence

as to be considered the natural result of labor, to the tear in the tissues involving the whole thickness of the recto-vaginal tissues extending toward the cervix and leaving a common genital and rectal outlet. Slight tears may occur anywhere, but generally they are observed at the fourchette, involving a little more than the delicate fold at the posterior commissure. From this the tear may extend up to the outlet and down to the sphincter and still remain superficial in character. The minimum and maximum tears and their intermediates are legion. In cases where the outlet is small and the pains strong sometimes the columns of the vagina become impinged and are forced before the after-coming head, causing a disastrous rupture.

Complete rupture of the perineum is produced by a rupture of the fourchette, skin, muscles of the truss formerly mentioned, even the circular fibres of the rectum, in the worst case. In complete rupture by separating the labia majora a serrated raw edge is generally presented, with retracted points on either side, if the sphincter has been severed. Cases are recorded where there has occurred perforation of the perineum. I have never had the privilege to witness such a condition.

The end to be gained by repair of the perineum is to restore the integrity of the functional parts and the results are usually proportionate as to whether the operation has been performed immediately after delivery or at a future time, the favorable results depending entirely on the nearness of the operation to the labor. There is an important point that I wish to call to your attention. The longer the condition is permitted to linger or exist following rupture, the more absorption there will be of muscles and tissues, and perhaps the formation of cicatrices that radically interfere with the operation of repair. Neuroses will have been established, prolapses occur which leave their impress on the nervous system and make the sufferer's life a burden.

Among all classes of society the immediate repair is a time saver. The poor and middle classes are so burdened with the duties of life that they cannot remain in bed long enough to obtain the success if the operation is done at some future time following delivery. Well, some one says, I am no surgeon, let him do the work later. No, general practitioner, too much work of this kind goes to the gynecologist, and women are the chronic sufferers of this nefarious practice. More than this, the late operation requires more technique and is more expensive, and for this reason the poor patient goes on suffering because she was not aided properly at the time of her confinement by the accoucheur who could have done it in a few minutes at little expense.

If the operation is done immediately following parturition the parts are considerably numbed, and by the local application of an 8 per cent. solution of cocaine, the patient seldom feels much pain. Be equal to the occasion; the first few operations will seem awkward, but after that you will not let one ruptured perineum go unrepaired. Examine all your patients, and if any rupture of any consequence has occurred repair it at once.

I hear some one say it is indiscreet to lift the covers and see. This is professional prudery. There is not one woman in twenty that will object. They have employed you to do your duty, and have a right to expect your duty well done, and will offer no objections to sensible visual examinations. It is needless to preamble to the patient concerning the trouble, but state the conditions in simple, concise words and the cause of them, and that you are now ready to repair the damage, and assure her that everything will be right. My experience has been that the more elaborate you make your explanations the more apprehensive and frightened the patient becomes, imagining that a formidable operation is about to be performed. By immediate repair, when the lying-in is ended, you have a satisfied patient and have saved her from many chronic ailments.

Have your needles and silkworm gut, or silk, sterilized. Place as many stitches as will properly coaptate the parts, and they will unite by first intention.

But I hear another say the uniting process will not take place while there is a lochial discharge. I will admit that formerly I thought that healing would not take place while there was lochial discharge, but this does not bear out in practice, and any practitioner that has repaired perineums under the conditions set forth will add his testimony to this fact. I hear another say, I have no need of the operation. I have heard that before; but one of two things has befallen this practitioner. Either he has been an exceedingly lucky man with his individual patients or his obstetrical experience has been very limited indeed. Ruptured perineums have and will occur as long as children are born, when the conditions are patent that cause it, which have been elaborated upon at the beginning of this article.

I will call your attention to three cases that have occurred in my practice in the last year:

Case 1—Mrs. C., primipara, aged twenty. Family history good. Presentation and position normal. Was in labor eight hours with no progress, except dilatation of the cervix. Applied forceps and delivered a living child. Perineum ruptured, two-thirds length. After removing placenta, placed five stitches, coapting the edges. Recovery complete without incident, except the removal of the stitches.

Case 2—Mrs. W. A., primipara, aged twenty-six. In labor two hours with no progress. Applied forceps, delivered living child. Perineum ruptured one-third. After removing

placenta, inserted three stitches. Healing by first intention. Complete recovery.

Case 3—Mrs. A., multipara, aged thirty. Became sick about 10 A. M. Child was born when I arrived. Mother stated that she had three violent expulsive pains and child was born. On examination, found complete rupture of the perineum and anal sphincter. After removal of the placenta, approximated the sphincter and perineum with eleven stitches, then followed with six more re-inforcing stitches. On the tenth day had complete union, and case made excellent recovery.—(National Quarterly.)

SPECIAL NOTICE!

Dear Doctor:

We are sending you this letter **BECAUSE** you are one of the 1,700 living graduates of the **Eclectic Medical College**.

Read carefully the **SEPTEMBER COLLEGE BULLETIN** recently mailed to you; it contains the class and address of each living graduate.

The **COLLEGE** is progressing well, with a slightly larger enrollment than last year.

On a basis of 100 students, about 35 come here from the efforts of the College officers, 30 from other colleges, and only 35 from our alumni or other Eclectics.

More students must be sent through systematic efforts of our alumni. This means **you**.

Secure permission to address the senior class of your local high school, and interest some bright young student and send him to some of the colleges nearest you for his pre-medical course, as scheduled in the **Bulletin**.

Then follow him up for these two years, and see him matriculate in your Alma Mater.

Our **ENTIRE** 1,700 graduates should be active members of the Alumni Association.

Each one can easily donate \$5.00 or \$10.00, or more, annually to the Endowment Fund.

YOUR College is rated "B" by the A. M. A. If you want it placed in "Class A." you must help us increase our Endowment Fund to a Half Million Dollars, which will then produce an additional income of \$25,000 per year.

The College, however, has always had a good reputation even with a "B" rating, and is **fully recognized** in 43 states.

The Faculty and officers are doing their full duty, but we must have **your** help.

Sincerely,

R. L. THOMAS, M. D.

Dean.

JOHN K. SCUDDER, M. D.

Secretary.

NEWS ITEMS

Dr. A. P. Baird of Los Angeles has retired from practice and may be addressed at Laguna Beach, California.

Dr. A. S. Powe has changed his address in Providence, to 246 Broad Street.

Dr. O. C. Welbourn, Los Angeles, has returned from a six weeks' trip through Canada and the East.

Dr. H. V. Brown, Los Angeles, was in San Francisco last month to attend the regular meeting of the California Board of Medical Examiners.

Dr. H. T. Cox, Los Angeles, is taking a year's vacation, but may always be reached through 425 East Third Street, Long Beach, California.

Dr. T. C. Young, Glendale, took a few days' vacation last month to go hunting. Dr. Young expects the new hospital in Glendale to be completed by the first of the year.

Dr. Orah K. Allen, San Francisco, spent a few days in Los Angeles last month en route home after a trip to New York.

Dr. Toms and family of New York City have come to California for the winter and are located in Alhambra. They made the trip by automobile. Dr. Toms is a brother of Mrs. G. W. Boskowitz.

Dr. and Mrs. J. C. Solomon, Los Angeles, have returned from a six weeks' trip. They visited their son, Dr. Harry Solomon and family in Boston, and spent some time in the White Mountains.

Dr. J. Fraser Barbrick, Boston, has recently suffered the loss of his mother and brother by death. Dr. Barbrick is expected to spend Christmas with his daughter in Los Angeles and will be warmly greeted by old friends at that time.

Dr. and Mrs. E. L. Welbourn, Union City, Indiana, will arrive this month to spend the winter with their son, Dr. L. S. Welbourn of Van Nuys, California. They will be accompanied by Dr. Marshall Welbourn, who will probably locate in Los Angeles.

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:: Original Contributions ::

PEDIATRIC HINTS.

D. A. Stevens, M. D., Los Angeles.

(Read before the California Eclectic Medical Association.)

Numerous times I have found it necessary to empty the stomach of a baby who had swallowed kerosene or gasoline. I have found it better to use physical means rather than drugs. Placing the child on the left arm, face downward, forefinger in the mouth, well into pharynx while the right hand compresses the stomach. Kneading movements secures child in position and are very effective. Lobelia and ipecac do not seem to have the same emetic action in infants as adults. I find, however, that a child will go into a sound sleep quickly after giving 10 to 30 minims of specific lobelia. I tell the parents that the child may throw the medicine up, in fact we expect it to do so, but if not it is just as well, and it is surprising how much they will keep and sleep peacefully on, waking in two or three hours, normal in every way. I do not care to give apomorphia to small children—it is too heroic in action.

Turpentine. Stop! look! listen! Like railroad crossings it is dangerous. The common use of same as a household remedy is to be deplored. Recently I was called in consultation on a 7-year-old boy. Pneumonia with typhoid complication. Child delirious, every few minutes he would have paroxysms of pain in bladder, grasping with hand over pubes and crying aloud. Doctor and parents alarmed as to prognosis. Stopped the use of turpentine to chest. Tr. Corn Silk for bladder irritation and symptoms soon subsided. In all colds or chest conditions, complicated with irritation of urinary organs, think of, and look for turpentine.

Pink Eye. Pink Eye has a way of sweeping the Imperial Valley every winter and causes much suffering both with

children and adults. Owing to regulations introduced into our schools we succeeded in checking its ravages to a marked degree. The routine remedy by other physicians was argyrol 25%. My R was Argyrol dr. j. Sulph. Carb. Zinz gr. iv, Aqua Oz. j. or R Sulph. Carbr. Zinc Gr. iv, Boracic Acid gr xx. Colorless Hydrastis dr. j. Aqua oz. j. Irrigate every three hours as long as pus shows in eyes. Zinc will cure when argyrol fails, as was demonstrated many times.

Children with red eyes, temperature, sore throat, flushed face, pain or any apparent change from normal were sent to my office for examination and with a note returned to school or sent home. A child with any contagious disease not allowed to return without a statement from me giving permission. We had the best attendance percentage ever attained up to this winter. If you are the health officer in your town give a little time to school inspection, it pays.

Stomatitis. Stomatitis of the aphthous or follicular variety, known to the laity as canker sore mouth, is a painful disease, complicating teething. The child will refuse to eat and cannot sleep well. It is important to alleviate pain and cure as soon as possible. What will we use? First thought, boracic acid and antiseptic washes will not do, it is not a germ disease. We fall into the habit of swatting the germ for most everything, but this time he is not in evidence. What is the cause? The stereotyped reply is, "stomach trouble." Almost as bad as the laity who connect stomatitis with stomach because of the similarity of words. I think I can speak from a life time of experience, personal as well as observation, when I claim that there is no connection between a disordered digestive organ and stomatitis. Holt claims it to be a nervous disease, more particularly the trophic nerve. I think this the nearest guess yet. I feel sure in my own mind that cold sores or Herpes Labialis is Herpes Zoster. Herpes of any location and the condition called Follicular Stomatitis are identical and I would call it Herpes Buccalis or Lingualis. The same burning pain is characteristic and ordinary cases, untreated, run about the same course. If child is old enough the best remedy is to touch with Sulphuric Acid, U. S. P. on tooth pick, one application as a rule being sufficient, the pain stopping at once. If too small, or too many of the ulcers present (at times there may be fifty or more), swab with strong solution of Copper Sulphate every two hours. This is effective but takes longer and does not allay pain so quickly, and taste is not pleasant. Thuja and hydrastis, equal parts, as swab is next best, taste not pleasant, not a quick cure, but good. Alum, tannic acid,

iodine, iron and other astringents have some merit but not the remedy of choice.

Enuresis. For enuresis all of the drug treatments have been found wanting in my hands. Fragrant sumach, belladonna, equisetum, and the whole lot singly and in combination are of only occasional value. I have recently tried pituitrin up to one mil, hypo, every three days, with some improvement in a very obstinate case. It is hard to get children to stand for the hypo and burning sensation following injection.

A thorough stimulation of the sacral nerves by manipulation and flattening abnormal curve to sacrum will cure 95% of the cases quickly. Treat every second day or daily if you choose. This disease is due to undeveloped or weak nervous control of neck of the bladder. Circumcision does not cure. Masturbation is not a cause as some claim. The only connection that lies here, is, that in later life, bedwetters furnish the patients who develop sexual weakness, impotency and etc., owing to congenital weakness of pelvic organs.

CHRONIC INTERSTITIAL NEPHRITIS.

P. M. Welbourn, M. D., Los Angeles, California.

(Read before the Los Angeles Eclectic Medical Society.)

Chronic interstitial nephritis, renal cirrhosis, or chronic Bright's Disease may result from long continued diffuse nephritis but more often such cases are essentially interstitial and atrophic in character from the very beginning, and, moreover, are the outgrowth of totally opposite conditions of the system and habits of life from those in chronic diffuse nephritis.

Primary interstitial nephritis is one of the most stealthy and insidious of all diseases in its manner of approach, giving rise to few, if any, noticeable symptoms until in progress for a number of years—often ten to fifteen. The lesions, though widespread, including the heart and arterial system, are yet almost imperceptible in their manifestations in the early stages; at the same time they are slowly progressive and permanent in character.

In typical cases of chronic interstitial nephritis we may look for the following conditions. Patient past forty years, previous condition of health good, skin dry, clear, pale and myxoedema like. Patient habitually rises once, twice or oftener at night to void urine which, to the eye, appears normal in its transparency and color and often is normal to the

ordinary clinical examination. The pulse is full and hard (never weak); certain sounds of the heart may be accentuated. Disorders of vision, and especially of hearing are common some time during the course of the disease, not very frequently early, but almost certain in late stages. Attacks of post-cervical neuralgia and neuritis in the shoulders is very common, almost characteristic, also diarrhoeal attacks, which mark eliminative efforts of the system, occur. Dropsy is absent.

The microscopical appearance of the kidney is typical. The most striking feature of the picture is the enormous increase in connective tissue but a closer study reveals the fact that this increase is only relative due to the disappearance of functionable parenchyma. Not an inconsiderable part of the mass of tissue that at first sight appears to be connective tissue consists of epithelial cords representing former tubules, for no tubule or glomerulus which once existed ever disappears entirely unless there is a necrosis, which is not the case in this condition. Many tubules are fairly normal so far as the character of the epithelium is concerned, and were the tubules that were functioning at the time of death. Other tubules, some enlarged, and others more normal in diameter, show atrophied or degenerated epithelia. Many areas show fibrosed glomeruli, tubules atrophied to mere epithelial cords, and increased connective tissue stroma. There are in reality two classes of non-functioning tubules, both of which have atrophied epithelia. In one case the actual diameter of the tubule may be increased, and in the case of the other the lumen, if there can be said to be a lumen, is almost ultra-microscopic in size. In the case of the latter these cords are separated by considerable connective tissue, while in the case of the former there is little if any increase in the stroma. But the important point is that, so far as the function of the organ is concerned, so far as the pathologic condition of the pathologic condition is concerned, the two areas are the site of the same processes, the difference being that in the case where there is a reduction of the size of the tubules there is an increase in the connective tissue between the tubules, but where there is no reduction in the size of the tubule there is no increase in the connective tissue—a fact which, in itself, would lead us to conclude that the steps in the formation of the condition known as chronic interstitial nephritis are a reduction in the amount of parenchyma, followed here, as in all parts of the body, by an increase of the surrounding connective tissue.

Urine. In early chronic interstitial nephritis the quantity is slightly decreased, and continues to decrease as the disease progresses. The specific gravity of the urine, night and day specimens, does not show the usual variation and eventually becomes fixed, and is low but not markedly so. The urea as compared with the specific gravity relatively and absolutely decreases. The 'phthalein output grows less and less; accordingly the urea, uric acid and non-protein nitrogen in the blood increases. Albuminuria is notoriously intermittent and positive tests are often very difficult to obtain. Except in the late stages of the disease, the quantity of albumen which may appear is always small and may disappear entirely over long periods. Some cases never show the presence of albumen. Casts, which may be present, are few in number, very small in diameter, and show hyaline in character, and exceedingly difficult to find. The crystalline deposit in the urine consists chiefly of uric acid and calcium oxalate, both of which are often found together—the urine being sharply acid. Renal epithelium and cellular elements are rarely observed.

On the whole, the urinary sediment in this lesion is remarkably small in quantity and practically free from cellular elements, save those common to normal urine.

Prognosis and Treatment. If we conform here to the custom of naming like conditions in other parts of the body, we should call this disease, senile nephritis. Therefore, the prognosis as to eventual cure is unfavorable. These patients are particularly susceptible to other diseases which often cause death. Eliminative treatment which will aid the kidneys and decrease the auto-intoxication, is indicated. The hypertrophy of the heart is a physiological condition as well as pathological. The arterial condition is probably the cause of the gradually increasing deafness which is often present. If the patient does not succumb to an intercurrent disease, the end is usually in coma after many years.

SPECIFIC MEDICINE RHUS TOX.

H. Ford Scudder, M. D.

Specific Indications. "Sharp stroke of pulse; sharp burning pain; pain in frontal region and over the left orbit; tongue showing small red points on upper surface of tip."

Rhus tox. is one of our most frequently indicated remedies. It is most beneficial in all cases showing symptoms of nervous unrest, in cerebral irritation, with sharp, frequent pulse and pinched expression about the eyes; especially in

children who awaken with a sharp, shrill cry. *Rhus tox.* is called for in all fevers where we have a hard, sharp stroke to the pulse, in acute inflammation with bright redness of the skin, extreme soreness, and sharp burning pain with great local heat. Irrespective of the name of the disease, whenever there is pain in the head, especially over the left eye, a sharp, quickened pulse, burning in the eyes, red pointed tongue with prominent papillae at the tip, deep red mucous membranes, always use *Rhus tox.* Use it in typhoid fever and other diseases with typhoid symptoms where the tongue is dry, red and elongated, with prominent papillae at the tip, dry red mucous membranes, sordes on the teeth, tympanitic abdomen, tendency to delirium, flushed face and bright, restless eyes. Through its decided antiseptic properties it overcomes the disease processes, and has a soothing effect on the cerebral irritation, including rest and quiet. In scarlet fever, measles and smallpox, indications for *Rhus tox.* are frequently present, to control the extreme restlessness before the appearance of the eruption, and in the latter stages, for the livid skin, red, glazed tongue, offensive breath, acrid, offensive discharges and failing vitality. Always use *Rhus tox.* in the first stages of acute erysipelas, especially of the head or face involving the cellular tissue; and in all irritations of the skin, with burning, tingling sensations.

In the treatment of rheumatism and rheumatic affections, especially acute inflammatory rheumatism, *Rhus tox.* has a wide field of usefulness. It possesses a direct influence upon the tendons, nerve sheaths and fascia. It is indicated when the pain is aggravated by rest and the application of heat, and is generally more valuable in the acute, than in the chronic forms of rheumatism. Combining it with Specific Medicine *Macrotys*, use it in all forms of muscular rheumatism, also for the stiff joints or partial paralysis of the limbs following rheumatism.

Rhus tox. has a decided influence on the glandular system, and has been successfully employed in the treatment of old ulcers with red, glistening edges, in carbuncle, inflammation of the submaxillary gland with hard induration, and in scrofula and syphilis, with tumid, red, shiny swellings.

Combined with Specific Medicine *Aconite*, *Rhus tox.* is valuable for dry, tickling, persistent bronchial cough. It has a decided anti-spasmodic influence, and is especially valuable in infantile convulsions, and in cerebral irritation or engorgement due to gastric or intestinal irritation. It is useful in acute spasmodic abdominal pain, and in nervous reflex vomiting when the tongue is pointed, with reddened tip and edges.

SPECIFIC MEDICINE DIOSCOREA

H. Ford Scudder, M. D., Los Angeles

Specific Indications. "The skin dry, the abdominal muscles contracted, constant pain with exacerbations."

Dioscorea is indicated by a coated tongue, increasing paroxysmal pain in the abdomen, gastric derangement, dry, yellow skin, tender and contracted abdominal muscles. Often the pain extends throughout the body, and there is more or less distension of the abdomen. Dioscorea is also valuable in treatment of nerve irritation, with tendency to spasms.

Dioscorea is classed as an anti-spasmodic and anodyne, and is extensively used in all acute diseases where griping, colicky, abdominal pain and tenderness are the leading symptoms. It is considered a specific in the treatment of bilious colic, for catarrhal conditions of the common bile duct, for the pain in the passage of gall stones in the milder cases, and for the pain following the passage of gall stones. It relieves spasmodic pain promptly, and its action is positive in overcoming pain and muscular spasms of the intestinal tract; hence its frequent use in the treatment of cholera morbus, cholera infantum, diarrhea and dysentery. In acute cases, give Specific Medicine Dioscorea, gtt. v to gtt. x. in hot water, every five or ten minutes until relief is obtained, then less frequently. For colicky pains in children give smaller doses, gtt. i or ii of the Specific Medicine, every half hour.

Besides its anti-spasmodic uses, Dioscorea possesses other valuable qualities. Try the Specific Medicine in doses of gtt. i to ii, every hour or two, for the nausea and vomiting of pregnancy. It is equally as effective for the relief of nausea and vomiting due to gastro-intestinal irritation, in flatulent distension of the stomach or abdomen accompanied by griping, cutting, sharp pains, sometimes extending to the chest or limbs, much rumbling and belching of offensive gas.

To modify the afterpains of labor, use Specific Medicine Dioscorea, either alone or combined with Specific Medicine Cannabis. In the treatment of the various forms of painful menstruation, and for chronic ovarian neuralgia, Specific Medicine Dioscorea is one of our most essential remedies. It is also valuable for its pain relieving effect in gastralgia, pain in the uterus, spasmodic pain in the bladder and rectum, in sciatica and some forms of facial neuralgia.

THE CALIFORNIA ECLECTIC MEDICAL JOURNAL

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O. C. WELBOURN, A.M., M.D.
Editor

D. MACLEAN, M.D.
Associate Editor

P. M. WELBOURN, A.B., M.D.
Assistant Editor

SPECIAL CONTRIBUTORS:

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A. F. STEPHENS, M. D., St. Louis, Mo.

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THE NEXT MEETING OF THE NATIONAL

The officers of the National Eclectic Medical Association are busily engaged with its affairs. Not the least of which is the preparation of the program for the next meeting. The reputation of these men guarantees that an intelligent and persistent effort will be made to make a successful year of their administration. However, it must not be forgotten that there is much work for each of us to do. For instance the preparation of a paper. It is not too early to begin to think about it. By selecting a topic at this time abundant opportunity is afforded to "think it over" during the leisure moments. With matured thoughts, logically arranged, the actual writing of a paper becomes a comparatively easy matter.

The fact that the next meeting will be held in Colorado Springs should be of particular interest to those of us who live "out West." By reason of its comparative nearness many of us should be able to attend, who at other times have found it to be impossible to do so. Moreover, from a tourist point of view, there are many things to be seen and enjoyed.

MACROTYS RACEMOSA.

T. S. Hodge, M. D., Torrington, Conn.

This plant is also known as cimicifuga, rattleroot, black snakeroot and squaw root. It is a tall, leafy, perennial herb, having a large knotty root with long slender fibers and a simple, smooth, furrowed stem from three to nine feet high.

Habitat.—Common everywhere from Canada to Georgia, growing in rich open woodlands and upon hillsides, but avoiding very wet or rocky places. When in bloom its long and graceful racemes form a conspicuous feature of the localities where it grows.

Parts Used.—The rhizome and rootlets.

This is an exceedingly powerful and useful remedy. Its influence over the nervous system is marked, it having been successfully used in epilepsy, nervous excitability, asthma and many spasmodic affections; in acute muscular rheumatism; in muscular pains, and uterine pain with tenderness. Scudder recommends it as an anti-rheumatic when the pulse is open, the pain paroxysmal, and the skin not dry nor constricted.

As a remedy for amenorrhea its action is marked, and I have often administered it in combination with pulsatilla with satisfactory results.

As a partus preparator, administered three or four times a day for two or three weeks prior to confinement, it assists very much during delivery. As a partus accelerator its action is very marked.

As a remedy for dysmenorrhea, in combination with pulsatilla, and administered three or four times a day for one week before the expected period, its action is very satisfactory.

Webster recommends it in "mental depression associated with uterine disease; mental depression accompanied with rheumatic pain; mental depression and tremulousness following overwork and active dissipation; delirium tremens and bad effects of opium." Dull, aching pain, with tendency to metastasis aggravated by eating and drinking, a sensation as of a hard lump in the stomach with the walls contracting, in persons with a tendency to muscular rheumatism, as indicated by a history of former attacks, would call for this remedy.

In pleurodynia, this remedy, in combination with bryonia, is successfully used. Muscular pain may be one of the first symptoms of cardiac disease, especially cardiac rheumatism, and macrotys is one of the most positive remedies we have in this condition.

Ovarian pain or irritation also calls for this remedy. In

pain in the mammary glands, ovaries or uterus, macrotys should be one of the first remedies thought of, and in nearly all cases of this character proves an important means of cure. (National Quarterly.)

ECHINACEA, PHYTOLACCA, IRIS AND VEGETABLE ALTERATIVES IN THE TREATMENT OF SYPHILIS.

G. Allison Hinton, M. D., Hot Springs, Ark.

Specific echinacea, phytolacca, iris and kindred vegetable alteratives have been used by our school of medicine in the treatment of syphilis for many years, and by many very good therapeutists. In fact, today the majority of us use these remedies. Situated, as I am, in a place world-renowned for curing syphilis, I find the results of treating this dread disease with the so-called vegetable alteratives to be negative in 95 per cent of the cases, and I have arrived at this conclusion from a tabulated record of several thousand cases. In my first five years' practice at the Springs I used no mercury or potassium iodide, furnished my own medicines, and relied on vegetable alteratives for results, and I must tell you I have been universally disappointed except in primary syphilis, where I could have secured favorable results without any treatment except hygiene and baths. In fact, I have treated many cases of tertiary syphilis who have at some time in the history of their case been treated by some of my Eclectic brethren, and who had entirely relied on echinacea, phytolacca, iris and kindred vegetable alteratives, but the patient was not cured, and came to Hot Springs for treatment. I have in my mind a case that came to me the past winter, suffering with the tertiary lesions, that had been treated in this city twenty-two years ago by one of the Eclectics, that yielded nicely to other than vegetable alteratives.

Now, gentlemen, I may be stirring up a hornets' nest in this my stand against these remedies in treating primary and secondary syphilis. However, I am speaking from my case record, and from an experience that few have had. You will ask, if I have not relied on these specific remedies, what have I used in treating these cases? I have been depending on the biniodide of mercury, in a non-irritating neutral menstruum, that I inject deep into the gluteal regions, following this in most cases with an iron tonic, using hygienic measures and bathing as an eliminator. I have in some few cases used the unguentum hydrargyri, and have secured fairly satisfactory

results. However, owing to the uncertainty of the dose (as the ointment treatment is always empirical), as well as the filthiness of this form of medication, I have discarded it entirely, and now depend on the subgluteal injection, and feel as positive that the mercury is indicated in the destruction and elimination of the *spirocheta pallida* as are the indications in any one pathological condition for any specific medication. As to the dosage, in all these cases treated I have secured very satisfactory results in from twenty to thirty injections of twenty to thirty drops of the biniodide, 1 per cent, solution. This, you will notice, is, as a whole, a very small amount of mercury, and cannot be accused of doing great damage to any tissue, as it is universally eliminated by hot bathing. Mercury does not remain in the system, as many would lead you to believe. This treatment I follow up with iron and vegetable tonics, thus soon restoring my patient to a healthy condition. I do not see any contraindications for specific echinacea in the treatment of syphilis. In fact, I use a great deal of these specifics in connection with the iodides, my favorite prescription being specific echinacea, ounce one, to syrup hydriodic acid, ounces seven; dose, dessertspoonful before meals. I use this in conjunction with the subgluteal injection of mercury biniodide.

Now, it is useless for me to warn you as Eclectics against the use of mercury protoiodide. Hundreds of cases come to us at the Springs who have been filled with mercury protoiodide during the primary stage or on suspicion of an infection of syphilis, whose real symptoms are so masked that a correct diagnosis is impossible. You will ask, "Why send a case to Hot Springs if the simple injection of mercury biniodide will cure them?" My reply is, the water from the Springs being a very strong diuretic as well as a diaphoretic, is consequently an eliminator equalled by no other water in the world. In fact, it is from our means of eliminating and unloading that we secure such marvelous results. (National Quarterly.)

FOOD FOR THE GROWING CHILD

By a New York Pediatricist

The selection of a diet for children is a problem not easily solved by formulas of scientific exactness alone without recourse to modifications dictated by expediency. It is well to educate parents and school children as to the fundamental needs of the growing body, but if advice touches too strongly on food values and too little on the palatability of a diet one

may as well be convinced beforehand that the linking of economy to nutritious substances of high caloric efficiency will be a failure. Oatmeal porridge is an excellent food, but if one were to try it for the first time as it is served in restaurants it is doubtful if he would believe that the same article of diet could be the light, soft, flaky substance as prepared by a competent cook and served hot with a little sugar, milk and cream. Children, left to themselves, are wary of untried foods and primarily are guided to a choice by their sense of taste, secondarily by the satisfaction that a drinkable or edible substance gives to the pangs of hunger. Few children take kindly to the efforts made in their behalf to promote good nutrition by careful supervision of their diet; it takes time and tactful management to make wholesome eating a habit they will not break—time and attention that are often difficult to bestow in the large family of the average workman. The high intelligence and versatility requisite to the making of a good housekeeper and mother who is mistress of herself and kind but firm with her children are not found often in any walk of life.

Although the canned foods and the delicatessen wares are in many ways a blessing to the busy housewife they may be and frequently are almost as great a menace to the health of children as are the pushcarts and stands where beverages and sweetmeats are sold. All of these things have come to stay, however, and if physicians merely preach against them while they are seeing the ravages they cause among children their voices will be lost. Is it not far better to select the best of the prepared foods, advocate their use and encourage the home box of wholesome candy, cakes and biscuits where the children may go? It is with these thoughts in mind that the writer is about to suggest a diet sufficiently varied, palatable, rich in all requisites, including the vitamins, and adapted to children without drawing too heavily on a mother's home cooking.

For the infant less than a year old, certified, or grade A milk, properly diluted and enriched by the addition of milk sugar or maltodextrose sugar, is by far the most economical, satisfying and safe food to use as a substitute for breast feeding or after weaning. If the milk be pasteurized, orange juice should be given once a day, an hour and a half after a regular feeding, increasing the amount from a half teaspoonful to as much as two tablespoonfuls, according to age. Strained oatmeal jelly, one to three teaspoonfuls in two or three feedings, may be given after the sixth month. Eggs are

unnecessary during the first year although many infants of nine months will take the cooked yolk and a few the entire soft cooked egg. Milk should be the principal food of the infant and child up to the fourth year and if a quart of milk be added daily to the dietary of a child until the end of the sixth year so much the better.

How much should the milk be diluted for the third, sixth and ninth month periods of the first year? The answer is never completely satisfactory unless it applies to an individual infant. In a general way, however, it may be stated that one part of whole milk to two parts of water for the first two months and equal parts of whole milk and water, with the usual additions of milk sugar or maltodextrose sugar, from the end of the second month to the end of the fifth month will maintain a good nutrition. The amount of whole milk in the dilution should be increased and the water withdrawn gradually until the end of the tenth month when the average infant can take the whole milk, or whole milk with the addition of cereals. Pediatricists are much more liberal with the percentage of whole milk allowed than they were formerly, but the newer formulas carry seasonal dangers.

From the end of the first year to school age the diet should never depart from the simplest lines; always the quart of milk, cheap at almost any price by comparison with the nutritive properties of other foods; whole wheat or white bread with butter, dry toast, a cup of strained soup or puree in which bits of stale bread, toast or cracker may be broken, orange juice, baked or mashed potato with butter, sifted spinach, a gradual extension of the use of vegetables to mashed carrots, string beans, tomatoes and peas; baked banana, stewed or baked apple, plain cake, fruit jellies; eggs, soft boiled, poached, soft fried in good butter, scrambled or omelet; meats—two or three times a week in small amounts, consisting of lamb, beef or chicken, stewed, broiled, roasted or minced with vegetables after being cooked (hash). Fish may be given now and then, preferably fresh white fish, cod or flounder, free of bones, creamed with butter and flour.

Up to school age it should be emphasized that food should not be given raw unless in the form of strained orange or grape juices. Bananas, apples, figs, berries of all sorts, should first be cooked before forming a part of the dietary of children of this age. It is needless to add that tea, coffee, beer and such beverages should also be disallowed. Indeed from five years to puberty tea and coffee should only be used as flavors to hot milk.

After children have arrived at school age the following diet list will be found satisfactory. Breakfast: Orange or a half grapefruit or baked apple, a ready cooked cereal with milk, a slice or two of whole wheat bread with butter, a hot drink—milk or milk flavored with coffee or cocoa.

Mid-day meal: This is a twenty-minute meal on school days unless a school luncheon is served. (1) Eggs, scrambled or fried in good butter or poached and served on toast; white bread (Italian or French) and butter; (2) Boiled, baked or mashed potatoes over which a portion of hot oxtail or vegetable soup (the canned condensed variety will do), has been poured, bread and butter; (3) Buttered milk toast, bread and butter with jam or a stewed fruit (apples, berries, prunes or figs); (4) Soup, bread and butter, slice of cake (package goods of the large bakeries) with a bit of jam or fruit jelly.

When the children return from the afternoon session of school they will be ready for bread and butter and a glass of milk.

Night meal (6 to 7 p. m.): For this meal one must plan to encourage the use of fresh vegetables by providing one or two of the following: Potatoes, spinach, carrots, string beans, peas, tomatoes, asparagus, turnips, cabbage or cauliflower and by way of relish, beets or celery, lettuce or romaine. Canned vegetables must be used when green vegetables are too costly. The piece de resistance is the meat dish; and here is where home cookery tells the tale of palatability, from the savory stew with plenty of vegetables to the thin cut of juicy steak with butter gravy. That is enough for the ravenous. If the pale substitutes that the delicatessen store can offer are served, then the best and safest is roast beef, sliced thin. Desserts creep in and cannot be avoided. Let them be simple—junket or corn starch with stewed fruit; but turn aside from the syndicated pie.

Reasonable objection may be made to placing the heartiest meal of the day for a school child between 6 and 7 p. m. However that may be, the writer has seen more cases of indigestion and poor nutrition arise from bolting a heavy mid-day meal on account of the child's anxiety to return to school than from a substantial, leisurely eaten dinner in the early evening. He has been fortunate in observing many large families of laborers where the children, now grown to sturdy adults, were reared on diets as simple as the one set forth, with dinner in the evening. Quite true, that was prior to the appearance of foods in great variety, prepared ready-to-serve; their palatability, coupled with convenience and the genius of advertising,

has crowded out the home cookery of that period and it is doubtful if the old era will ever return.

If, at frightful cost of life, man has been able to advance from the era of uncooked food to the present age he is bound to continue his feats of adaptation without disastrous consequences. Although the latest achievement in prepared foods as set forth in the advertising cards of the transportation lines may get as many stares as the latest things in silks or collars, there is still hope for the sort of discrimination that will try anything once. (Journal of Organotherapy.)

ROAMED ARIZONA IN EARLY DAYS, DR. MUNK IS VISITING IN CITY

Plodding with the Franciscan missionaries, Juan de la Asuncion and Marco de Niza, through the Arizona deserts nearly 300 years ago, watching the strange dances of the Yuma Indians, following the Spanish soldiery in their excursions from Sonora and California, peering into the remains of a forgotten civilization in the cliff dwellings of the north, sketching the thousand colors limned on the precipitous walls of the Grand Canyon, sitting around the sacred camp fires of the Moki tribe and then following the stealthy Apache in the fastness of the south, journeying with the silver miners to Tombstone and helping to mould the adobe bricks for the first houses in Tucson and Phoenix, five men met in the office of the state historian at the capitol building yesterday and linked the present with the past in a panorama of history that stretched from the eastern border of New Mexico to the shores of the Pacific and from Montana to Chihuahua.

The center of the group was Dr. J. A. Munk, historian, horticulturist and book collector, whose collection of Arizona includes more than 15,000 volumes and who has been an authority upon the southwestern United States for thirty years. With him were Col. James H. McClintock, state historian, whose "History of Arizona" ranks with the best state histories in the land; Waldo Emerson Twitchell, the greatest living authority on New Mexico; Emory Copta, sculptor and authority on the Moki and Navajo Indians; and Walter Ingalls, son of Adj. Gen. Walter S. Ingalls.

This is one of Dr. Munk's regular excursions to Arizona. Since 1884 he has made trips into Arizona from California every year, collecting data of the early history of the state, talking with its pioneers, examining its natural wonders, and building up his knowledge of this part of the world until today

it is said to excel that of any other citizen of the southwest. Meeting with Twitchell, Copta, McClintock and Ingalls, he went into executive session with them yesterday in a conversation that began early in the afternoon and ended last evening at Colonel McClintock's long after men who have not so much to talk about were fast asleep.

Dr. Munk's personal story alone is an interesting one. Born in Ohio in 1847, he lived also for some time in Missouri and Kansas. In 1884 he and his brother, Judge E. R. Monk, came to Arizona and developed a large ranch near Willcox, Cochise county. Dr. Munk continued on to California, where he resumed the practice of medicine begun in the east, but with his love of Arizona unabated. Every year found him back here fathering material for his books, looking for old volumes on the southwest and increasing his general stock of information. In 1901 he began an intensive study of the northern part of the state, including the Grand Canyon, the northern Indians, the Petrified Forest and the cliff dwellings, though he never lost his interest in the state as a whole.

It was impossible for a man to spend his life in this manner without wanting others to know of his discoveries and to enjoy the things that have pleased him. In 1900 he published his "Arizona Bibliography," which was republished in 1908 and 1914. In 1905 he completed "Arizona Sketches," and in 1916 he published a volume of musical compositions, which included works which he had prepared in his young manhood. His latest book, "Southwest Sketches," is just off the press and the first volumes are now on their way.

He has always retained his interest in his range in Cochise county and has supplemented this by the establishment of a unique garden at Compton, Cal. Here he has devoted himself to cultivating the floral and arboreal life of the eastern states, and especially of those states in which he lived as a boy, thus bringing side by side the flora of the east and of California. In this garden he has also devoted space to the cultivation of what he calls his "materia medica garden," which is given over to hundreds of varieties of medicinal plants and herbs gathered from all parts of the world.

During all the time that Dr. Munk has been in the west his library of Arizona books has grown steadily until his collection today numbers more than 15,000 volumes. This collection, to which he is adding continually, has been donated to the Southwest museum at Los Angeles. It is housed in the famous Caracol Tower of the museum, where it takes up an entire room. So valuable is the library and so comprehensive

in Arizoniana that Colonel McClintock found it of inestimable assistance while writing his "History of Arizona," and so spent more than three months in Compton while preparing his history.

In the discussion held yesterday in the state house, history and art, folk songs and dances, all the fact, all the comedy and tragedy and interest of the history of the southwest during more than three centuries were touched upon. Of chief importance, however, was an examination of the data of the period between the Mexican war and the Civil war, or, more distinctly, the period between 1846 and 1864, during which the affairs of Arizona were administered from New Mexico, and during which also the existence of Arizona as a separate geographical and political division suffered an interregnum.

This discussion then led up to a discussion of the time when New Mexico extended through to California and also included the southern part of Nevada. The conversation resulted also in the promise of a gift from Mr. Twitchell to Colonel McClintock. This is to be one of the original manuscript orders issued by Governor de Ansa of New Mexico, the Spanish captain who at one time commanded the presidio at Tubac, near Tucson, and who broke the first trail from Tubac to California, where he founded the city of San Francisco. For his success in this mission he was given the governorship of New Mexico.

The so-called "early days" of the white settlers—the founding of Tucson and Phoenix, the discovery of silver at Tombstone, the exploitation of the great cattle ranges of the north—were also topics of conversation during the afternoon and included even a repetition of Captain Kitchen's famous description of the road to Sonora:

"Tucson, Tubac, Tumacacori, and to hell!"

Dr. Munk, who is a guest at the Adams hotel, plans to remain in Phoenix for about a week, during which he intends to make a number of automobile trips with Col. McClintock to places of historical interest in Maricopa county.—The Arizona Republican.

A PLEA FOR AN ENDOWED MEDICAL COLLEGE

Editor Journal:

In the Journal of September, 1920, was noted the publication of a letter from the Council of Medical Education of the National Eclectic Medical Association over the signature of the Chairman, Dr. T. D. Adlerman. Also in the issue of Octo-

ber, 1920, appears a letter addressed to the Alumni from the Dean and Secretary of the Eclectic Medical College of Cincinnati. The purpose of both letters is an appeal for contributions to build up an endowment fund which will make it possible to improve this college to a point of highest efficiency, satisfying the demands of modern standards in medical teaching institutions, and which will presumably guarantee the financial future of the institution.

Those who overlooked these notices are admonished to look up these copies of the Journal, read the letters and give the matter serious consideration, with a view of determining whether or not we are to have a part in preserving this institution as a living monument to the important contributions of Eclectic physicians to Medical Science in the past, and as a signal exponent of progressive medicine in the future.

The writer does not happen to be an alumnus of this college, but believes it to be a worthy institution and is in hearty accord with the spirit prompting the appeal and has only words of commendation for those who have sacrificed and carried the burden in the past. However, we must face the well-recognized fact that in these days a medical college, if unsupported by adequate endowment, will have troublous times ahead. Therefore, to get the question before the house, we wish to declare ourselves for an endowment and nothing else. We believe that before a financial campaign of this character is undertaken the prospective contributors should have definite knowledge of the program in the minds of the Council and the college officials. With this in view the following questionnaire is appended, a full, frank answer to which will have a strong tendency to inspire confidence in and loosen the purse strings of our friends on the Pacific Coast:

1. In whom is the ownership and control of the College vested at the present time?
2. If the college is not now under the supervision of our National Association, is there a proposed plan by which that can be accomplished?
3. Has a survey been made of the entire field and an estimate made of the minimum average amount which will be required from each potential friend of the cause?
4. Has it been determined just how large a permanent endowment will be required to furnish an income fully adequate to meet the future needs of the institution?
5. Will the proposed endowment be safeguarded in such a manner that the principal sum cannot be expended, and pro-

viding that the contributions will revert to the donors in case of failure?

6. Is the college self-supporting so far as present current expenses are concerned?

7. The foregoing questions are merely corollary to the main question, i. e., has the whole project been thought out and planned for in a systematic, business-like manner?

We will anxiously await the answers to these questions and if reasonably satisfactory will pledge our utmost endeavor in promoting the success of the endowment. We have had previous correspondence with Dr. Adlerman and we would like to know whether the general sentiment is favorable to the old system of hit and miss contributions or whether a genuine endowment meets with popular approval. Let us hear from others.

HARRY V. BROWN, M. D.

SOCIETY CALENDAR

National Eclectic Medical Association meets in Colorado Spring, June 21-24, 1921. H. W. Felter, M.D., Cincinnati, Ohio, President; Dr. H. H. Helbing, St. Louis, Mo., Secretary.

Eclectic Medical Society of the State of California meets May, 1921, D. A. Stevens, M.D., Los Angeles, Cal., President; Dr. W. E. Daniels, Long Beach, Cal., Secretary.

Los Angeles Eclectic Medical Society meets at 8 p. m. on first Tuesday of each month. P. M. Welbourn, M.D., Los Angeles, Cal., President; C. Ohnemuller, M.D., Los Angeles, Secretary.

Southern California Eclectic Medical Association meets in October, 1920. Dr. Clinton Roath, Los Angeles, President; Dr. H. C. Smith, Glendale, Secretary.

NEWS ITEMS

Dr. J. A. Munk, Los Angeles, has returned from a week's visit in Arizona.

Dr. and Mrs. E. L. Welbourn have arrived from Indiana to spend the winter with their son in Van Nuys, California.

We have had several letters of inquiry from Eclectic physicians in the East wanting to come to California. If any one knows of any particularly desirable locations we should be glad to know of them.

Dr. H. W. Crook, Big Pine, spent several days in Los Angeles last month, when he brought a patient to the Westlake Hospital.

COLLEGE OF PHYSICIANS
OF
LOS ANGELES

Dr. C. Ohnemuller, Los Angeles, enjoyed a vacation in Northern California last month.

Dr. Orah K. Allen, San Francisco, was in Los Angeles a few days last month en route home from a trip to New York.

PROTECTION AGAINST WINTER COUGHS

One of the disadvantages of the cold season which persons of reduced vitality must suffer, is their increased susceptibility to colds and coughs. Old people especially, are unusually prone to bronchial inflammations during the winter season.

Many physicians insist upon the older and weaker members of their clientele, who have this susceptibility to bronchial conditions, anticipated in this season of coughs by beginning the regular and continued use of Cord. Ect. Ol. Morrhuæ Comp. (Hagee). This agent not only has a general reconstructive power as a result of which the resisting powers of the entire body are improved, but further than this it seems to exert a selective influence upon bronchial tissue, further fortifying it against inflammations and infections.

The use of Cord. Ext. Ol. Morrhuæ Comp. (Hagee) as a protection against colds in the aged and weak persons in general has proven of high advantage, and is a routine practice with many physicians.

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O. C. WELBOURN, A. M., M. D., Editor
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DEVOTED TO THE
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Influenza and Pneumonia

PROPHYLAXIS: We supply Influenza-Pneumonia Vaccine prepared in accordance with the original formula and method of Dr. Rosenow. It is administered in three injections, at intervals of six or seven days.

Influenza-Pneumonia Vaccine (Prophylactic)

- Bio. 632. Three bulbs in a package.
Bio. 633. Three syringes in a package.
Bio. 634. Rubber-stoppered vials containing five mls.
Bio. 635. Rubber-stoppered vials containing twenty mls.

TREATMENT: Pneumonia Phylacogen has been used with success in the therapeutic treatment of influenza and in the prophylactic and therapeutic treatment of pneumonia.

Pneumonia Phylacogen

- Bio. 605. Bulbs of ten mls, one in a package.
Bio. 607. Bulbs of one ml, five in a package.

Send for our booklet, "Prophylaxis and Treatment of Influenzal Pneumonia."

Parke, Davis & Company
DETROIT

Eli Lilly & Company Makes Clear Its Policy Regarding Alcoholic Medicinal Preparations

FOR many months Eli Lilly and Company has been deleting from its price list alcoholic medicinal preparations that can be used for beverage purposes by those possessing abnormal appetites for alcohol.

While there is a legitimate demand for these products, under existing laws they constitute a temptation to the unscrupulous. Because Eli Lilly and Company will not consent to such an abuse of its products, it was decided to discontinue entirely their manufacture and sale.

Lilly representatives have been given rigid instructions that their house is not in the market for liquor business in any shape or form.

Eli Lilly & Company asks the support of the medical profession on the basis upon which the reputation of the house is built — high quality, ethical products and a unique, fair-play-to-all selling policy.

In its business dealings Eli Lilly & Company is actuated by something more than a desire for dividends to its stockholders. It is interested in the future of pharmacy and in its elevation to the highest possible plane of service to the medical profession. In taking the position outlined above, Eli Lilly & Company believes that it is acting in accordance with the spirit of the times and for the best interests of both pharmacy and medicine.

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A Silver Germicide in Convenient Form

SILVOL is an extremely soluble, non-irritating silver germicide. Silvol Capsules represent one of the convenient forms in which this silver germicide is supplied. Silvol Capsules enable a physician to prepare a fresh solution of Silvol quickly. The contents of one capsule, dissolved in two fluidrachms of water, makes a five-per-cent solution of Silvol.

Silvol is indicated in the treatment of acute inflammations of the mucous membrane of the eye, ear, nose, throat, urethra and vagina. Silvol is employed in solutions ranging from five to fifty per cent.

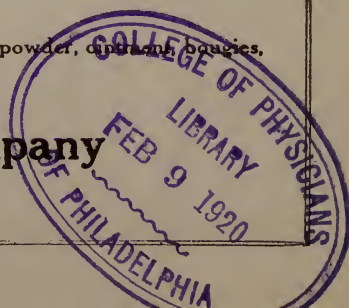
SILVOL CAPSULES

6 grains. Bottles of 50 capsules.

NOTE.—Silvol is also supplied in these forms: Granular powder, dusting powders, and vaginal suppositories.

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DETROIT



Standard Anodynes, Sedatives and Hypnotics

Non-Narcotic and Non-Habit Forming

PHYSICIANS frequently find it difficult to select a satisfactory substitute for preparations of opium and its alkaloids, to which they have so long been accustomed, and yet which, for many reasons, they now wish to use only as a last resort.

This has prompted us to select a list of preparations from our catalog that meets many of the conditions where, heretofore, a narcotic preparation of some kind would commonly have been prescribed.

In this list we offer over ninety Anodynes, Sedatives and Hypnotics, non-narcotic and commonly regarded as non-habit forming, embracing Extracts, Pills, Tablets and Liquids of standard formulas. The list has been prepared in vest-pocket form for convenience and ready reference, giving formulas, therapeutic action, dosage, etc.

Physicians who, as far as possible, desire to prescribe non-narcotic and non-habit forming preparations, may have this handy list for the asking.

*Address Eli Lilly & Company, Indianapolis,
and ask for a list of "Standard Anodynes,
Sedatives and Hypnotics"*

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43 Years of Cascara Experience

CASCARA SAGRADA was unknown to medicine until we introduced the drug in 1877. It came into immediate favor as a tonic laxative. Now it is recognized in every leading pharmacopœia of the world.

Our pharmacists and chemists have worked on Cascara processes for many years. As a result we are able to turn out products which are more active, more uniform and more satisfactory than any others available to the physician.

We market Cascara Sagrada in a wide variety of forms. We have two preparations, however, which especially commend themselves to medical practitioners. One is Fluid Extract of Cascara Sagrada (P. D. & Co.)—a bitter preparation. The other is Cascara Evacuant—a palatable product.

Both preparations are ideal in their respective spheres. We have no hesitancy in staking our reputation upon their therapeutic efficiency.

Parke, Davis & Company

For March and April Prescriptions

For Coughs and Colds

SEDATUSSIN—A non-narcotic, non-alcoholic, pleasant-tasting cough syrup. Commends itself to the patient; readily taken by children; meets the requirements of an all-round bronchial sedative. Write for tasting samples.

For Rheumatic and Related Disorders

RHEUMALGINE—A compound of strontium salicylate, hexamethylenamine and colchicine. Has proved very effective in acute articular and chronic rheumatism, muscular pains, lumbago, sciatica, migraine of the rheumatic, gout, etc. Rheumalgine can be prescribed in both liquid and tablet form, the former in twelve-ounce bottles and the latter in bottles of 100 tablets.

CHLOROXYL—A comparatively new product, has already attracted much attention because of its effectiveness as a uric acid eliminant, analgesic and antipyretic. It is phenylcinchoninic acid hydrochloride. Chloroxyl is exhibited in bottles of 100 and in tubes of 20 tablets of 5 grains each. Ask for literature.

For Administering Quinine

COCO-QUININE—In prescribing Coco-Quinine, Lilly, you know that you are writing for the original product and that your patient will get two grains of true, unchanged quinine sulphate in each average teaspoonful (96 minims). A child will take Coco-Quinine and lick the spoon.

*Sedatussin, Rheumalgine, Chloroxyl, and Coco-Quinine
are Supplied Through the Drug Trade*

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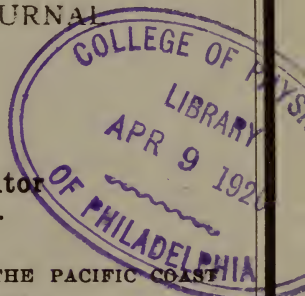
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The Most Active Palatable Cascara

CASCARA EVACUANT is undeniably the most efficient aromatic preparation of Cascara Sagrada to be found anywhere. Not only that, but it differs markedly from every other palatable cascara.

The process specified in the Pharmacopœia for making an aromatic cascara, and used by manufacturers in general, involves the destruction of the bitter principle of the drug by the addition of magnesium oxide or some other alkali. This method not only destroys the bitter principle, but lessens the activity of the other constituents of the bark.

In making Cascara Evacuant we use an entirely different process. We discovered some years ago a method of separating the bitter glucoside of cascara, and in the manufacturing process it is chemically removed—not destroyed and left in.

This leaves the other constituents of the drug intact and unimpaired. Cascara Evacuant will be found by actual test to be nearly twice as active as the usual "aromatic cascara."

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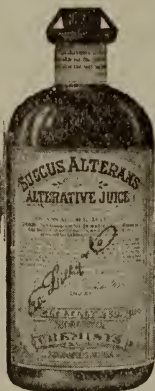
Three Stand-bys



IN prescribing Coco-Quinine, Lilly, you know that you are writing for the original product and that your patient will get two grains of true, unchanged quinine sulphate in each average teaspoonful (96 minims.) A child will take Coco-Quinine and lick the spoon.



LILLY'S Liquid Bland contains the component parts of Bland's Mass which react to form fresh ferrous carbonate at the time the dose is mixed with water. The patient gets the fresh iron salt each time. Lilly's Liquid Bland is supplied Plain, with Arsenic, with Strychnine, and with Arsenic and Strychnine, in special bottles only. Send for demonstration sample and literature.



SUCCUS ALTERANS is well known as a purely vegetable alterative. It is made from fresh, undried drugs gathered in season. It has been used extensively by the medical profession for over thirty years. Succus Alterans contains no iodides but is an excellent vehicle for them. Specify the original Lilly Product, supplied in pint bottles only.

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INDIANAPOLIS

U. S. A.

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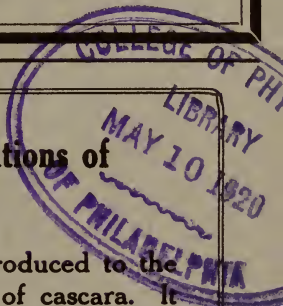
A Tonic Laxative Upon Which Two Generations of Physicians Have Depended

Fluid Extract of Cascara Sagrada (P. D. & Co.) was introduced to the medical profession in 1877. It is the original extract of cascara. It is scientifically made from carefully selected and cured bark, botanically identified as the true *Rhamnus Purshiana*. It has no peer in point of therapeutic efficiency.

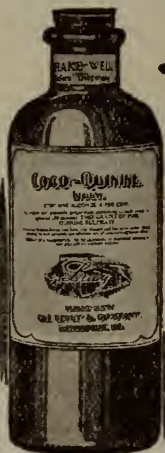
Fluid Extract of Cascara Sagrada (P. D. & Co.) costs the patient a trifle more than do certain competing products. But is richly worth the higher price. It is much more active. Smaller doses are used. Dose for dose, indeed, it will stand comparison in cost with any other fluid extract of cascara.

Fluid Extract of Cascara Sagrada (P. D. & Co.) is the product which has given to cascara the reputation among physicians which it enjoys today. It has been employed for more than forty years in the treatment of chronic intestinal torpor.

Parke, Davis & Company
DETROIT



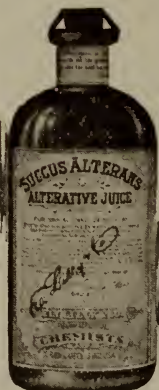
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ALCRESTA TABLETS of IPECAC are an enteric preparation of ipecac alkaloids, a convenient, practical method of administering the alkaloids of ipecac by mouth without causing nausea or vomiting. Alcresta Tablets of Ipecac are uncoated and disintegrating. Each tablet contains the alkaloids from ten grains of Ipecac U.S.P. They are as effective as emetine hypodermically and have a wide field of usefulness.

Supplied by the Drug Trade in bottles of 40 and 500 Tablets

LILLY'S DENTAL LOTION contains emetine among other valuable antiseptics. It was originally intended as a prophylactic mouth wash but has met with much favor by physicians as a spray or gargle in tonsillitis, pharyngitis, and other throat affections. It has a distinctive color, a pleasant odor, and an agreeable taste.

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The Rational Treatment of Constipation

AN eminent authority has said, "Cascara Sagrada ought never to be used as a purge, but only as a laxative." In a nutshell that is the rationale of Cascara therapy.

Cascara Sagrada extracts should be given in gradually ascending doses daily, preferably at night. In obstinate cases two or even three daily doses may be required. The treatment should be persistently continued until the patient has a normal bowel action every day. Then and not until then should the dose be tapered off to the vanishing point.

The physician has the choice of two standard preparations—Cascara Evacuant, a palatable extract of twice the strength of the ordinary aromatic cascarias, and F. E. Cascara Sagrada (P. D. & Co.), a bitter product which has been in use by the medical profession for more than forty years.

Home Offices and Laboratories,
Detroit, Michigan.

PARKE, DAVIS & CO.

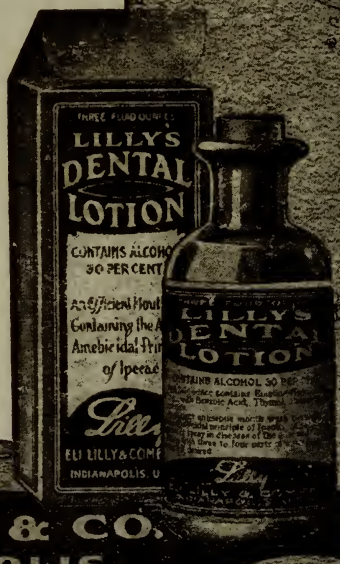


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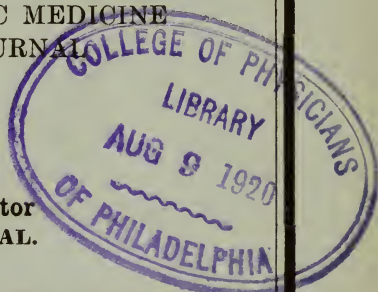
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Apothesine in Minor Surgery

THE brilliant success that has attended the use of Apothesine as a local anesthetic in major surgical procedures suggests its broader application in the vast field of minor surgery.

This appeals especially to the general practitioner, who is daily called upon to perform minor operations in which the administration of ether is scarcely feasible.

Here Apothesine is the anesthetic of choice. It is a stable synthetic substance; it is fully as efficient as cocaine, while relatively less objectionable; its effect is prolonged; it is not toxic in the amounts used to produce anesthesia, nor is it destructive to tissue; its solutions can be sterilized by boiling.

Apothesine is supplied in the form of crystals, tablets and solution of 1½% strength with 1:60,000 Adrenalin. The solution, which is put up in 20-cc and 2-ounce vials, is ready for immediate use.

Parke, Davis & Company

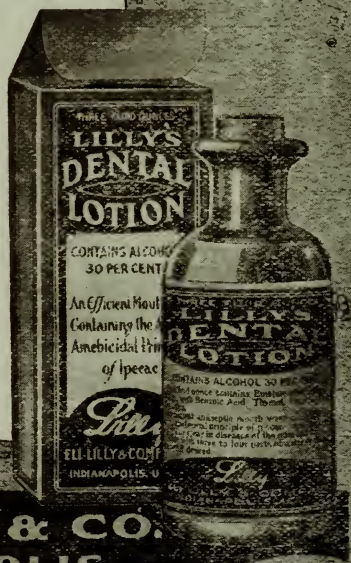


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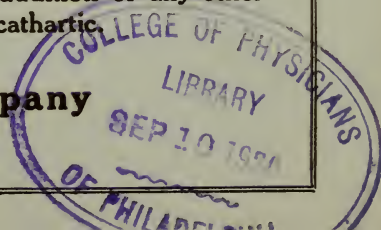
In the process specified by the Pharmacopœia for making aro-

matic cascara the bitter glucoside is destroyed by the addition of an alkali. Unfortunately this procedure impairs the therapeutic activity of the other principles contained in the bark. As a result, the addition of aloes, rhubarb, podophyllum, senna or other drugs is often resorted to.

Cascara Evacuant is nearly twice as active as the ordinary aromatic products. Moreover, it represents nothing but cascara—it is unfortified by the addition of any other laxative or cathartic.

Parke, Davis & Company

DETROIT





HEMAGULEN

Persistent capillary hemorrhages, often so difficult to control, yield readily to Hemagulen, a physiological hemostatic. Hemagulen is prepared from fresh brain substance. It is rich in one of the elements of clot production. Hemagulen should be in every physician's emergency bag.

Supplied by the Drug Trade in Ounce Bottles

LUNARGEN

Drop the contents of a six-grain capsule of Lunargen into two drams of water and you have a five percent solution of a protein salt of silver, highly germicidal and admirably adapted to the treatment of acute and chronic inflammation of the eye, ear, nose and throat, and the genito-urinary tract. Lunargen is a non-toxic and non-caustic astringent and anti-septic. Accurate solutions of other strengths can be prepared quite as readily.

Lunargen is Supplied by the Drug Trade in Ounce and Four-Ounce Bottles and in Bottles of 50 Six-Grain Capsules



SEDATUSSIN

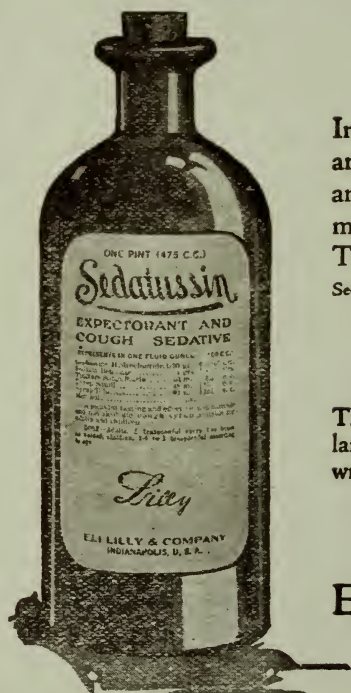
In addition to being safe, effective and pleasant-tasting, Sedatussin is free from alcohol and narcotics. Sedatussin meets the requirements of an all-round bronchial sedative. The formula speaks for itself.

Sedatussin contains in one fluid ounce:

Cephaeline Hydrochloride	1-30 gr.
Sodium Benzoate	4 gr.
Tincture Sanguinaria	40 mins.
Syrup Squill	48 mins.
Syrup Tolu	60 mins.
Menthol	q. s.

The pleasant taste of Sedatussin makes it particularly acceptable to children. Study the formula; write us for a tasting sample.

Sedatussin is Supplied by the Drug Trade in Pint and Gallon Bottles



ELI LILLY & COMPANY
INDIANAPOLIS,
U. S. A.

THE CALIFORNIA ECLECTIC MEDICAL JOURNAL

Incorporating

THE LOS ANGELES JOURNAL OF ELECTIC MEDICINE
AND THE CALIFORNIA MEDICAL JOURNAL

ISSUED MONTHLY

OCTOBER, 1920

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"ENTERED AS SECOND-CLASS MATTER JAN. 23, 1909, AT THE POST OFFICE AT LOS ANGELES, CALIFORNIA,
UNDER ACT OF MARCH 3, 1879."

Adrenalin in Medicine

1—Its Physiological Action

ADRENALIN affects body tissues in a manner strikingly similar to the effect produced by stimulating the sympathetic nerve system. Thus, if the sympathetic nerves govern the contraction of certain unstripped muscle tissue, adrenalin, too, will contract it. If, on the other hand, the tissue in question is supplied with inhibitory impulses by this nerve system, adrenalin relaxes it.

These actions, however, are exerted neither through the medium of the sympathetic nerves nor directly upon the muscle fibres themselves. The receptive organs for these adrenalin impulses are the points of union of the sympathetic nerves and the unstripped muscle fibres—the myoneural junctions.

Probably the most important action of adrenalin is stimulation of the muscular coats of the arterioles. At first there is acceleration of the pulse rate, but the rise in blood pressure which re-

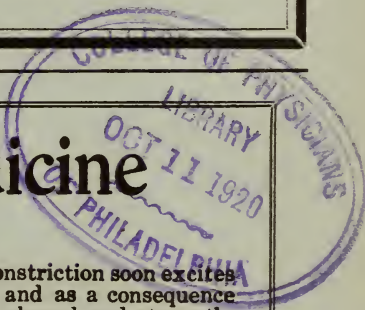
sults from vaso-constriction soon excites the vagus centre and as a consequence the heart-beat is slowed and strengthened. Besides this indirect vagus action, adrenalin stimulates the heart directly, thus producing more complete evacuation of the chambers. In large doses, however, adrenalin predisposes the heart to fibrillary contractions.

The stimulating action of adrenalin is exerted also on the dilator muscle of the iris (dilates the pupil); the muscular fibres of the uterus and vagina; the retractor muscle of the penis; the pyloric and ileocecal valves; the glycogenolytic function of the liver; the salivary glands and the glands of the mouth and the stomach.

Adrenalin relaxes the muscular walls of the esophagus, stomach and intestines. Also on the muscular coat of the bronchioles adrenalin has a relaxing effect, due probably to vagus stimulation.



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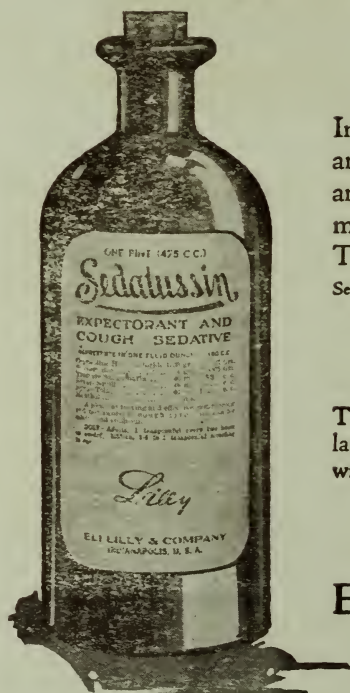
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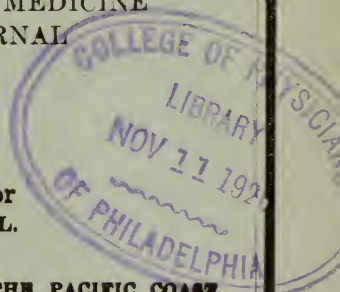
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Adrenalin in Medicine

2—Treatment of the Paroxysm of Asthma

THE fact that Adrenalin promptly relieves the paroxysm of bronchial asthma has been demonstrated in thousands of cases. Explanation of its mode of action, however, must be couched in the language of probability and speculation, because the pathogenesis of the disease is the subject of an ever-increasing number of theories and much controversy.

Among the more reasonable and credible of these theories are: 1, Anaphylactic manifestations in the bronchial mucosa from bacterial protein sensitization; 2, The same condition produced by sensitization to food proteins (allergy), pollens of plants and animal emanations; 3, Reflex vagus irritation of the bronchial mucosa from peripheral afferent impulses originating along the course of distribution of this nerve.

It is not unlikely that every case of bronchial asthma can

be explained by one of these theories, and that, indeed, in some of the cases more than one of these factors are underlying. Regardless of the theory or theories applicable to any given case, the immediate mechanical cause of the distressing paroxysm is a sudden spasmodic stenosis of the bronchioles.

Adrenalin is the best emergency remedy for the treatment of the asthmatic paroxysm at the command of the physician. Two to ten minims of Adrenalin (1:1000) are given subcutaneously, or preferably intramuscularly. Frequently only five or ten seconds elapse after the injection when partial alleviation of the dyspnoea is noticed. In a few minutes relief is complete. Adrenalin acts quickly

or not at all. In those few cases in which no favorable effect becomes apparent after the first injection this medication should not be pushed.



Parke, Davis & Company

IMPORTANT!

EVERY winter during the past several years there has been, increasingly, **THE COUNTRY OVER**, a famine in Libradol. Stocks of physicians and retail druggists are unexpectedly consumed by the demand due to urgent winter diseases. Jobbers likewise find themselves, **WITHIN A DAY**, "out of Libradol." Much suffering results from this deplorable condition. We urge every reader of this communication to provide **AT ONCE** for the winter's supply of Libradol,—it will surely be a necessity. Jobbers have it now in stock. The standard packages of Libradol are:—

4 oz. . . 12 jars in a pasteboard packer.
8 oz. . . 8 jars in a pasteboard packer.
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hospital size—single jar, 5 lbs.

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Adrenalin in Medicine

3—Treatment of Shock and Collapse

THE therapeutic importance of Adrenalin in shock and collapse is suggested by their most obvious and constant phenomenon—a loss in blood pressure.

Treatment aims to raise the blood pressure by increasing peripheral resistance. As a rapidly acting medical agent for the certain accomplishment of this object Adrenalin is without a peer. In cases of ordinary shock it is best administered by intravenous infusion of high dilutions in saline solution. Five drops of the 1:1000 Adrenalin Chloride Solution to an ounce of normal salt solution dilutes the Adrenalin to approximately 1:100,000, which is the proper strength to employ intravenously. A slow, steady and continuous stream should be maintained by feeding the solution from a buret to which is attached a stop-cock for the regulation of the rate of flow.

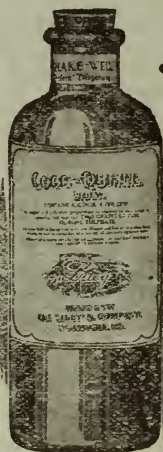
In those cases marked by extremely profound and dangerous shock or collapse the intravenous method may prove too slow or ineffective. Recourse should then be had to the procedure described by Crile and called centripetal arterial transfusion. Briefly it consists in the insertion into an artery of a cannula directed toward the heart. Into the rubber tubing which is attached to the cannula 15 to 30 minims of Adrenalin 1:1000 is injected as soon as the saline infusion begins.

The effect of this is to bring the Adrenalin immediately into contact with the larger arteries and the heart. Sometimes, even in apparent death, the heart will resume its contractions, thereby distributing the Adrenalin through the arterial system and accomplishing the object of this heroic measure—resuscitation and elevation of the blood pressure.



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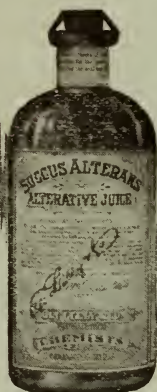
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LILLY'S Liquid Blaud contains the component parts of Blaud's Mass which react to form fresh ferrous carbonate at the time the dose is mixed with water. The patient gets the fresh iron salt each time. Lilly's Liquid Blaud is supplied Plain, with Arsenic, with Strychnine, and with Arsenic and Strychnine, in special bottles only. Send for demonstration sample and literature.



SUCCUS ALTERANS is well known as a purely vegetable alterative. It is made from fresh, undried drugs gathered in season. It has been used extensively by the medical profession for over thirty years. Succus Alterans contains no iodides but is an excellent vehicle for them. Specify the original Lilly Product, supplied in pint bottles only.

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